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The State of Competition in the Canadian Petroleum Industry



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Volume IV

The Production Sector



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The State of Competition in The Canadian Petroleum Industry

Statement of Evidence and Material Submitted to the
Restrictive Trade Practices Commission in Connection with an
Inquiry under Section 47 of the Combines Investigation Act

relating to

THE EXPLORATION FOR, AND THE IMPORTATION, PRODUCTION,
PURCHASE, MANUFACTURE, STORAGE, TRANSPORTATION,
DISTRIBUTION, BARTER, SUPPLY AND SALE OF CRUDE OIL,
PETROLEUM, REFINED PETROLEUM PRODUCTS AND RELATED
PRODUCTS

by

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Director of Investigation and Research
Combines Investigation Act

Volume IV — The Production Sector

This is one of a set of seven volumes comprising the Statement of Evidence and Material submitted to the Restrictive Trade Practices Commission in this matter by the Director of Investigation and Research under the Combines Investigation Act. The volumes comprising this Statement include:

- | | |
|------------|--|
| Volume I | — Findings, Issues and Remedies |
| Volume II | — The Domestic Sector: An Overview of the Environment,
Industry Behaviour and Performance |
| Volume III | — International Linkages: Canada and the World
Petroleum Market |
| Volume IV | — The Production Sector |
| Volume V | — The Refining Sector |
| Volume VI | — The Marketing of Gasoline |
| Volume VII | — Index: Documents, Hearing Transcripts and other
Sources Referenced in Volumes II through VI |



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VOLUME IV

THE PRODUCTION SECTOR

A. *Introduction*

The price history of the domestic crude oil production sector that was recounted in a previous volume indicates the industry was able to isolate itself from normal market forces. This section analyzes the way in which this isolation was achieved, namely through the coordinated behaviour of producers and purchasers, which resulted in the determination of the production and price levels of several types of Canadian crude oils.

Extensive government regulation of the production sector has prompted some observers of the industry to ascribe industry performance completely to government policies. In Canada, both the federal government's National Oil Policy and the Alberta government's prorationing system¹ affected the environment within which the industry operated. But to argue that government policies suffice to explain the performance of the industry is inadequate; for, at most, these policies were a necessary, not a sufficient condition for the suppression of price competition. While these policies may have created a favourable environment that allowed producers and purchasers to devise a mechanism by which prices were set, it will be seen that the latter's concerted activity was necessary to the restriction of competition in the industry.

It would be inappropriate to place undue emphasis upon the importance of government prorationing schemes as the explanation of the behaviour and performance of the crude production sector. Concentration upon government policy in this area misses the essence of the issue. During the time period under study, prorationing did not set prices; it only provided the mechanism that was used to ration supply to demand. Demand is a function of price and the industry had to devise an efficacious method of setting the price. This was no easy task. First, since oil is not a homogeneous commodity, any pricing mechanism had to cover different types of crude. Secondly, the industry was composed of a relatively large number of firms whose activity required coordination if a mechanism for setting prices was to be devised. Thirdly, not all hydrocarbons were prorated. Therefore the industry had to devise methods to control or to restrict competition from close substitutes.

The following sections describe the behaviour that served to restrict competition in the production sector of the petroleum industry. They also focus

1. The prorationing system restricted production to the demands of the purchasers, albeit with certain minor modifications. A more complete explanation of the prorationing system is included in the glossary.

upon industry characteristics that facilitated coordinated industry activity and its consequential effects. Although the production sector itself was relatively atomistic, the pipeline sector, which was an integral part thereof, was not. Concentration of ownership in pipelines was the key factor that contributed to the establishment and enforcement of a pricing mechanism which had anti-competitive effects. If the problems that developed in the production sector are to be redressed, public policy must concentrate on improving regulation in this area or upon the divestiture of pipeline ownership by the majors.

B. *The Mechanism For Establishing Crude Oil Prices*

1. *Introduction*

No one, single device sufficed to establish the price of crude oil generally in the Canadian producing sector. Rather, the industry restricted competition by utilizing a number of complementary mechanisms. One central mechanism focused on a number of crude types — generally those subject to crude prorationing sanctioned by provincial authorities. Other secondary techniques were used in areas to which the central mechanism did not initially apply.

TABLE 1

SHARE OF NET CRUDE AND GAS LIQUIDS PRODUCTION IN CANADA 1956-1968

	TEXACO	GULF	IMPERIAL	SHELL	4-FIRM CONCENTRATION
1956	1.3	3.8	22.3	0.1	27.5
1957	1.1	7.3	19.4	0.1	27.9
1958	0.9	6.8	16.9	2.7	27.3
1959	1.1	6.7	16.6	2.5	26.9
1960	1.0	6.5	15.0	3.5	26.0
1961	1.2	6.3	15.0	4.0	26.5
1962	1.2	6.7	14.7	4.6	27.2
1963	1.2	7.2	13.8	5.4	27.6
1964	1.2	7.2	13.4	5.5	27.3
1965	1.2	6.9	12.5	5.4	26.0
1966*p	1.2	7.9	12.5	5.3	26.9
1967*p	1.3	6.7	12.7	4.9	25.6
1968	1.4	6.7	12.6	5.0	25.7

Notes: *p — Preliminary estimate for the year as per Document #49002.

Source: Document #49002, Texaco¹

Two characteristics of the producing sector were instrumental in determining the price-setting mechanism that developed. First, there were many

firms that produced crude oil. Imperial, Gulf, Texaco and Shell did not account for as large a share of domestic production as they did of crude oil imports into eastern Canada. Table 1 shows that the share of Imperial, Gulf, Shell, and Texaco in total net crude and gas liquids production in Canada between 1956 and 1968 averaged about 26 per cent.¹ In contrast, these four firms imported over 80 per cent of the crude and product imports that were utilized in Quebec and the Maritimes in 1960. Secondly, the coordination of pricing policy in the industry was complicated by the fact that crude oil is not a homogeneous commodity. A specific crude can vary considerably in value from one refinery to another. The refinery value of a crude is a function of the types of products that can be derived from a crude, the percentage yield of each type of product, the market prices of each product and the costs of refining a particular product mix from that crude type.

The characteristics that determine the value of a crude type are numerous; however, two are particularly important. The first is specific gravity. Specific gravity is often represented by degrees of a scale sponsored by the American Petroleum Institute (A.P.I.). On this A.P.I. scale, degrees of gravity go up as the specific gravity decreases. The value of any crude type will be a function of the value of the products produced and the cost of refining.² Generally the higher the degree of gravity on the A.P.I. scale, the higher the value of the crude. The size of the price difference depends primarily upon the relative price of gasoline and fuel oil.³ In the words of Adelman:

“The value of a barrel of crude depends on the prices realized from the products into which it is refined. The greater the yield of the more valuable naphtha and gas oil, and the less the heavy (residual) fuel oil, the greater the value of the crude oil. The API gravity scale was constructed as a means of stating small differentials in specific gravity which resulted from small differences in yield of light ends versus residual. The higher the API gravity, the greater the yield of light ends.”⁴

1. The Texaco figures listed in Table 1 are for Texaco Canada and do not include Texaco Exploration (Texex). Adding in Texex production figures would increase Texaco's share to approximately that of Shell and Gulf (see Table 9, Volume II) and might, therefore, increase the four firm market share by about four or five percentage points to around 30 per cent. A 1969 Imperial document gives the share of western Canadian crude production of these four companies as 32 per cent (Document # 109745, Imperial).² A Shell document for 1965 indicates that Imperial, Gulf, Shell and Texaco produced about 35 per cent of total crude oil and pentanes plus and that if the other large producer, Mobil, were added the share of these five firms approached 41 per cent (Document # 31684, Shell).³
2. Crude oil is rarely used directly as a fuel source — it is first refined into fuels. The refining process separates the component hydrocarbons by boiling range into such products as gasoline, kerosene, diesel fuel, heating oils, lubricating oils and residual fuels.
3. J.S. Bain, *The Economics of the Pacific Coast Petroleum Industry* (Berkeley: University of California Press, 1945), Vol. II, p. 103.
4. Adelman, *The World Petroleum Market*, p. 412.

The second major characteristic of crude oil that affects its value is its sulphur content. Sulphur content affects both refining costs and output value. Crudes with a high sulphur content, or sour crudes, are relatively expensive to refine and/or yield a lower quality heavy or residual fuel oil.

These two factors account for most of the difference in the value of various crude types, but they are not sufficient to explain all differences. Other characteristics, such as pour quality, wax, and H_2S content, also affect the refinery value of crude. In addition, the value of crude may differ among refiners because of differences in their final product markets or because of different refinery technology in place.

In view of the foregoing, any mechanism designed to set prices, not only would have had to concern itself with the absolute price level, but also the relative price of different crudes.

2. *The Main Pricing Formula*

Both the average price of crude oil and the relative values of different crude types was established by consensus. One type of crude was chosen as the reference point in terms of its price, gravity and sulphur content and then other crudes were priced in relationship to this 'base crude'. Sun Oil described the evolution of this mechanism as follows:

"... Canadian crude became available in substantial volumes during 1947 with the discovery of the Leduc field in Alberta. Imperial Oil set a price for Leduc Crude related to competitive United States oils. As other fields were discovered it was agreed amongst the producers and refiners to assume that Leduc was the par crude and relate others to it. A par crude, therefore, was a crude having an API Gravity of 39° and a Sulphur Content of 0.4%. *A scale related to par was then devised* ... It was also necessary to determine a common geographical basing point and therefore the par crude was established as having a gravity of 39°, a sulphur content of 0.4% and delivered to Edmonton."

(Document # 84413, October 25, 1963, Sun Oil, emphasis added)⁴

The scale that was adopted varied the price of other crudes from that of the par crude¹ by 3 cents per barrel for every 1° API variation and 2 cents per barrel for each .1 per cent sulphur variation above .49 per cent sulphur (Document # 42685).⁵ Edmonton was chosen as the common geographic basing point to which the scale applied.

Mobil, in a 1964 study of the Canadian pricing system described the system and its pervasiveness:

1. The par crude was set at 39° API until January 1, 1971, when it was raised to 42° API. This provided the upper limit for gravity price adjustment.

“Wellhead prices for light crudes (28° — 43°API gravity) generally can be computed by deducting transportation back to the wellhead and applying a simple linear formula for gravity and sulphur content.”¹

(Document # 18509, 1964, Mobil)⁶

The process that was used to price Canadian crude is discussed at length in the following document found at Shell:

“Pricing of Canadian Crude Oil Sold to Shell Oil

The cost to Shell Oil of Canadian crude purchased from Shell Canada² may be stated in terms of the following formula: acquisition cost (of Shell Canada) + 1¢ per barrel marketing and handling *commission* + transportation charges from Edmonton terminal to *Anacortes* refinery. For purposes of crude oil pricing, the key element for discussion is acquisition cost which, in effect, consists of (i) posted field price of the particular crude, (ii) transportation costs of such crude to Edmonton terminal[s] (posted field price + transportation cost to Edmonton = the base price at Edmonton for such crude, subject to quality adjustment), and (iii) in the case of crude purchased, for the account of Shell Oil, from third-party *producers*, a *1¢ per barrel marketing and handling commission charged to Shell Canada*.

Deferring consideration of such 1¢ per barrel marketing and handling charge, the pricing of crude oil (or a calculation of posted price) is accomplished by reference to an Edmonton base price for a particular quality of Canadian crude oil (a standard reference or base price). Crude located at the Edmonton terminal (the base price terminal for Alberta) is valued at \$3.15³ per barrel for 42° American Petroleum Institute (A.P.I.) gravity and [sulphur] content of less than .5% (*approximately .49%*). Having established a base price for a particular gravity and sulphur *content (quality)*, two factors affect the [field] price of crude: (i) the distance *from the main or base terminal to the field or wellhead* location and (ii) the quality (A.P.I. gravity and [S₂] content). Accordingly, in order to determine or calculate the posted field price of a particular quality crude it is first necessary to “back out” [subtract] the transportation cost from field location to Edmonton from the base price of \$3.15. Having deducted transportation cost, adjustment must be made for quality differentials as follows:

- (1) penalty of 3¢ per degree of gravity lower than the base gravity so established; and
- (2) penalty of 2¢ per .1% of [sulphur by] content in excess of the base content established at Edmonton.

For exemplification purposes, assume an analysis is done on a new well, which is located about 200 miles northwest of Edmonton, and results in a determination that the crude at such well has an A.P.I. gravity of 40° and an H₂S [S₂] *content of .6%*.

1. For a more extensive description of Mobil’s observations see Appendix A.
2. Such formula is relevant irrespective of whether crude purchases represent crude supplied from third parties or from Shell Canada’s own production.
3. The Edmonton base price is adjusted from time to time to reflect changes in market conditions. Prior to December 15, 1970, the base price at Edmonton was \$2.90 per barrel.

The pipeline shipping tariff from the field location to Edmonton is 20¢ per barrel. The posted field price of crude produced from this particular well would be calculated as follows:

Base price at Edmonton ($42^{\circ} + [S_2 .49/\text{or less}]$)	\$3.15/Bbl.
Less: Transportation to Edmonton	<u>(.20)</u>
Base price at well location	\$2.95
Less: A.P.I. gravity reduction penalty $40^{\circ} - 42^{\circ} = -2^{\circ}$ at penalty of 3¢ per degree	(.06)
Excess H_2S content penalty $.4\% - .6\% = -.2\%$ at penalty of 2¢ per .1% (.4% is the first significant decimal less than .5%)	<u>(.04)</u>
Posted field price of this crude	\$2.85/Bbl.

The posted prices from particular field or wellhead locations for Canadian crude are [generally] uniform in that Shell Canada [pay] the same posted prices as any other oil producing company located in such area in Canada. The posted prices are, from time to time, changed depending upon changes in the base price established at Edmonton and any eventual quality differentials in the crude oil produced at the particular field or wellhead location. As previously noted, the base price at Edmonton from which posted field prices are calculated is an industry-wide *established* [accepted] price and is uniformly used by all oil producing [purchasing] companies in this area.”

(Document # 24437-40, 1972, Shell)⁷ (square brackets denote handwritten additions to original)

It is clear from the above that the price of most Canadian light crude was set by this mechanism.

(a) *The Role of Imperial*

While the excerpts cited above refer to the participation of producers in general, they also indicate that Imperial played a special role. Other firms beside Sun Oil also described Imperial as being the leader in establishing the price structure. For instance, Shell noted that the “Alberta scale for crude pricing was originally established by I.O.L.” (Document # 42685).⁸ Similarly, Mobil ascribed to Imperial a leadership role in setting Canadian crude prices:

“When the Canadian producing industry first became really established in the early 1950’s, the major crude purchasers, *led by Imperial*, set up a pricing system for light crudes based on the laid-down price at Sarnia, Ontario of a crude comparable in quality to United States domestic supply to the same refinery area.”

(Document # 18516, July, 1964, Mobil, emphasis added)⁹

Other references identify Imperial Oil as the leader in the establishment of the price setting mechanism. In 1964, Mobil described Imperial as “the Canadian price leader” (Document # 18512)¹⁰ noting that it was “invariably the first to announce crude price changes” (Document # 18515).¹¹ Six years later, when prices began to resume an upward movement, Imperial still retained its

prominent position in the industry. The National Energy Board described the crude price movements in the early nineteen seventies as all being the result of Imperial's leadership:

"In each case, the increase was initiated by Imperial and was fairly quickly followed by other purchasers who post prices for western Canadian oil..."

(Document # 124643, January 10, 1973, Imperial)¹²

Although Imperial was regarded as the leader in the industry, it could not act in complete isolation of others. There was another firm which, like Imperial, purchased a significant proportion of crude production.¹ Several references are made to its actions. Interprovincial Pipe Line (IPL) reported that Imperial and Gulf together, prior to the establishment of the National Oil Policy Line, worked together to extend the use of Canadian crude in Ontario (Document # 16368).¹³ Interprovincial in the following discussion of the effects of the 1962 IPL tariff reduction, suggested that Imperial and Gulf acted in concert on another matter:

"The five cent reduction in tariff, which has been mentioned for Sarnia-Toronto deliveries, may possibly relate to Peace River crude. Assuming a 25 cent tariff from Peace River to Edmonton, this oil is over-priced by 5 cents per barrel in the Sarnia-Toronto area. Rather than reduce the transportation charge from the field to Edmonton, Imperial Oil and B.A. [Gulf] may be attempting to increase the price level of all other light crudes produced in Alberta."

(Document # 4139, January 18, 1962, Interprovincial)¹⁴

Notwithstanding these references to the actions of both Imperial and Gulf, Imperial was the dominant firm. Mobil noted that:

"British American (a Gulf subsidiary) has a lower self-sufficiency than Imperial. It was the only major challenger to a general price increase posted by Imperial in May, 1962 but was forced to follow shortly thereafter."

(Document # 18515-6, 1964, Mobil).¹⁵

A similar observation was made by another observer:

"Imperial Oil... raised the price of light crudes by 10¢ on May 10 and Great Northern Oil Producing Company followed immediately on medium gravity crudes. The other companies, led by British American Oil [Gulf], refused to raise their offering price, particularly since no increase in product prices was suggested by Imperial. By the end of the month, having experienced difficulty in obtaining supplies, British American and Shell had capitulated and Texaco was (correctly) expected to surrender shortly."²

1. The importance of a firm's crude purchasing position is discussed at length in a later section on 'Crude Control' and the 'Industry Model'.
2. D.R. Campbell, *The Impact of Seller Concentration on Market Performance: A Comparative Study of the Canadian and American Petroleum Refining and Marketing Industries* (Cornell: unpublished Ph. D. thesis, 1966), pp. 109-10.

While Imperial played a prominent role in the establishment and maintenance of the price setting mechanism for crude oil, it could not do so without consulting the rest of the industry. The need for coordination was a result both of industry structure and the nature of the product. In the section that follows, the role that the pipeline sector played in this process is examined.

(b) *The Pipeline Sector and Equalization*

The pipeline sector provided an ideal location for the coordination of pricing policy because of the geographic concentration of the production sector. In Canada, unlike the United States, production was more heavily concentrated in one region and there was less inter-regional competition. A succinct description of the Canadian industry is contained in a 1964 document prepared by Mobil. At the same time as it noted that "the prices of Canadian crudes are not subject to the pressure of internal competition to the extent United States crudes are" (Document # 18511),¹⁶ Mobil observed that the production and transportation facilities were more concentrated in Canada than in the United States:

"In Canada, excess producing capacity and proration to market demand is confined to one producing area — Alberta — whereas in the United States at least two major areas are subject to prorationing. Major integrated U.S. crude purchasers can and do choose between major producing areas, depending on quality and crude ownership. Prices reflect this choice over the long run.

"In Canada there are, basically, only two main types of crude — light and medium. Further, these crudes move to market in blended streams which means that preference on basis of 'value to refiner' is not a major factor. In the U.S., crudes are spread over a much wider area and there are many differing streams which do have varying refining characteristics. U.S. crude prices reflect these competitive forces. For example, in Oklahoma dual prices have prevailed for the last two years, whereas Canadian light crudes (over eighty per cent of Canadian production) have never been subject to dual pricing.

"Canada has only one trunkline system running from the West Coast to Toronto, Ontario. As crude flows east or west from Edmonton, the hub of Alberta's gathering network (see Exhibit 1), refiners have little choice as to the type of crude they will take and the price they will pay. Though individual refiners receive differing values of crudes, the producer is paid the *average* value of his stream. In the U.S. movements from producing to refining areas are much more complex."

(Document # 18511, July, 1964, Mobil)¹⁷

With crude oil production geographically concentrated and with only one major pipeline for shipments east or west (see Figure 1) the pipeline interface between the production and the refining sectors offered a convenient focal point for the development of a mechanism that effectively set Canadian

crude prices. This was accomplished by the adoption of a particular form of equalization procedure which, in effect, set the price of much of the crude oil produced in western Canada.

Equalization procedures are required when a crude that a shipper might deliver to the pipeline is not sufficient in volume and is, therefore, uneconomic when shipped separately as a segregated crude stream. When this occurs the crude is blended with others into what is called a mixed blend stream. If a party ships crude to the starting terminus of a pipeline but receives at the other end a blended stream, then since the quality of the mixed blend stream received is generally different from the quality of the crude delivered, an accounting adjustment is necessary. Shippers who delivered a crude of higher quality than the mixed blend received must be compensated for the difference. Shippers who delivered a lower quality crude than received must be penalized. If an intermediate market develops where crude is sold prior to batching and then resold downstream at the delivery point, this problem would be handled by market forces. However, when no such markets develop, an accounting procedure is required. The procedure adopted is known as equalization.¹

The form of equalization that was adopted for the main east-west pipeline was based on the price mechanism discussed earlier. Parties delivering crude to Interprovincial Pipe Line for blending received the value of the par crude (as posted by Imperial) plus (or minus) an amount which equalled 3 cents per degree API times the difference in degrees API between the delivered and the par crude, and minus 2 cents per .1 per cent sulphur above .49 per cent sulphur by weight. The mixed blend crude that was delivered at the other end of the pipeline was priced in a similar manner.

The Shell document quoted earlier, that discussed the Canadian crude pricing system, also demonstrates how the equalization system fed back into the determination of the wellhead price. The document noted:

"In terms of the preceding example, the acquisition cost of the particular crude would be \$3.05/Bbl. (\$2.85 posted price + \$.20 transportation to Edmonton) plus, in the case of oil purchased from third parties, a material and handling charge of 1¢/Bbl.

"The foregoing calculation of acquisition cost has not, at this point, taken into account the fact that crude oil from numerous fields, the volume and quality of which varying from field to field, are, generally, transported through one common pipeline facility en route to the main terminal at Edmonton. As previously noted, the crude received at the terminal is assumed to contain the weighted average A.P.I. gravity and H_2S [S_2] content of all the crude shipped in a given month from the various

1. Equalization can occur at more than one point in the movement of crude between the wellhead and the refinery. For example, the output of producers served by a feeder pipeline may be equalized as well.

fields. Simply stated, the price per barrel [of] the commingled stream at Edmonton is determined by deducting the weighted average penalty (for differences in A.P.I. gravity and [S₂] content) from the base price of \$3.15 per barrel.

“At the present time, approximately 10 companies may ship crude through any given pipeline system. As previously indicated, such companies may either own the producing wells, own a portion of such wells or purchase the crude from other producers. In any of such cases, the posted field price is used as a basis for valuation. The value (determined on the basis of quality content) of one shipper’s crude, however, may be greater or less than the weighted average value of the stream. In order to offset the differences between the value of the crude an individual shipper moved in a given month and the weighted average value of the crude he received at the terminal, cash payments, commonly referred to as equalization payments, are made with one major shipper acting as a bank receiving and disbursing the payments to and from the other shippers accordingly. Therefore, the value per barrel of the weighted average crude at the terminal will be equal to any individual shipper’s acquisition costs, which includes the total posted field prices, transportation charges and equalization payments or receipts for that particular crude stream.”

(Documents # 24440-2, 1972, Shell, bracketed words are handwritten in the original).¹⁸

Together the use of the price of a par crude and a formula that established the relation of the price of other crudes to the par crude served to determine the price of all crudes subject to the process. Imperial was certainly aware that the process that determined the formula and the par crude together determined the average price of crude oil. For instance, in 1971, an Imperial official noted that a price increase could be accomplished by changing the pricing formula:

“It was also suggested that an alternate approach to a general price increase might be considered through changes in differentials for sulphur content and other quality factors and by making minor field-by-field adjustments.”

(Document # 103158, November 29, 1971, Imperial)¹⁹

Two years later Imperial demonstrated the same appreciation that the formula used for the pricing process could be manipulated to increase the average price of crude:

“At present the Canadian industry scale of 3¢/°API tends to be out of line with world industry practice... Imperial could quietly move to the more common 2¢/°API scale and hold 42° par crude constant. The result would be an unobtrusive increase in average Canadian crude prices by about 5¢/bbl.”

(Document # 117938, May 17, 1973, Imperial)²⁰

Other petroleum companies that participated in the process that set the pricing formula — the Shippers on Interprovincial Pipe Line¹—were also aware that this process in effect determined the price of all crude oil subject to the process.

1. A list of Shippers on Interprovincial Pipe Line is provided in Appendix B.

The following quotation indicates the way in which the discussions on differentials to be used for equalization amounted to discussions on price. It concerns an agreement on the value of condensate — a light hydrocarbon:

"Prior to meeting adjournment, all companies were asked to be prepared at the next meeting to be held Monday, November 8th in Union's offices, to indicate a definite position on injection of condensate into mixed blend crude and also be prepared to suggest a value at which material would be acceptable therein. Those not wishing to discuss price or value could achieve the same result by indicating a gravity equivalent of the price."

(Document # 136479, November 5, 1971, B.P., emphasis added)²¹

Not unnaturally, even those crudes not mixed into blend streams also came to be priced on the same formula. Indeed, even light crudes outside Alberta came to be priced under the same formula (Documents # 84413, # 91095, # 18029);²² ^{23, 24} thus the relative price of almost all Canadian light crudes, about 80 per cent of Canadian production (Document # 18511),²⁵ were determined as a result of this industry agreement on gravity/sulphur scale and the price level of the reference crude.

That some type of equalization was required is not in question; the issue is whether there is any method of doing so without in effect fixing price levels of different crudes and, therefore, the average price of crude. Indeed there is an alternate equalization method which was used in pipeline operations in the United States. On the Platte Pipe Line¹, shippers equalized different crude types by taking the average gravity differential of the posted prices of different companies and applying that to the settlement of accounts (Document # 137139).²⁶ This procedure allowed equalization to proceed without agreement on the absolute price level of the crude in any particular field — as the following quotations indicate:

"This procedure [equalization] has no bearing upon the well price a shipper pays for his crude."

(Document # 137136, September 30, 1968, Gulf)²⁷

"... and the gravity differential values set forth herein for making adjustments authorized hereunder are for the purpose only of your calculations to accomplish the results herein sought, and in no way affect the price of the crude petroleum or are determinative of it."

(Document # 137140, September 30, 1968, Gulf)²⁸

An example of the way in which equalization would occur using this method is given in Table 2.

1. The Platte Pipe Line transported approximately eleven different crude streams and either received crude from or delivered crude to eleven connecting pipelines (Document # 137135).²⁹

TABLE 2
OIL SHIPPERS SERVICE, INC.—JANUARY, 1953

1.	2. 99% Bbls. Tendered to Platte P.I.	3. Gravity	4. Gravity Differentials Value per Barrel (From Differential) Tables attached	5. Gravity Diff. Value Bbls. (Col. 2 x Col. 4)	6. Debit-Credit Adjustment Per Bbl. Difference individual shippers' wgt'd avg-gravity diff. value (#) Col. 4, 8 Plate common stream wgt'd avg. gravity diff. value (X)	7. Total Value (Col. 2 x Col. 6)	Individual Shippers Determination of their total crude cost
Shipper "A"	Elk Basin Lt. do	99,000.00 49,500.00	43.0° 54.8	\$.40 .40	\$ 39,600.00 19,800.00		Shipper's well price cost \$2.65 bbl. Shipper's well price cost \$2.65 bbl.
Total Shipper "A"		148,500.00	.40#	59,400.00	+ \$.0237186	+ \$3,522.21	From shipper's wgt'd avg. well price cost of \$2.55 deduct .0237186 bbl. credit adjustment plus 1/13¢ service charge.
Shipper "B"	Nebraska do	60,000.00 90,000.00	38.0 37.4	.36 .348	21,600.00 31,320.00		Shipper's well price cost \$2.51 bbl. Shipper's well price cost \$2.59 bbl.
Total Shipper "B"		150,000.00	.3528 #	52,920.00	— .0234814	— 3,522.21	To shipper's wgt'd avg. well price cost of \$2.598 add .0234814 bbl. debit adjust- ment plus 1/10¢ service charge.
TOTAL common stream sweet crude		298,500.00	.3762814 X	112,320.00			Shipper's well price cost \$2.39 bbl.
Shipper "C"	Bonanza L. Soldian- do Wartz	45,000.00 198,000.00	36.1 35.4	1.112 1.086	50,040.00 215,028.00		Shipper's well price cost \$2.35 bbl. To shippers wgt'd avg. well price cost of \$2.3574 add .0020106 bbl. debit adjustment plus 1/10¢ service charge.
Total Shipper "C"		243,000.00	1.0908148 #	265,068.00	— .0020106	— 488.57	Shipper's well price cost \$2.35 bbl. Shipper's well price cost \$2.35 bbl.
Shipper "D"	Worland do	50,000.00 85,000.00	35.0 36.1	1.07 1.112	53,500.00 94,520.00		From shipper's wgt'd avg. well price cost of \$2.37518 deduct .003619 bbls. credit adjustment plus 1/10¢ service charge.
Total Shipper "D"		135,000.00	1.0964444 #	148,020.00	+ .003619	+ 488.57	Shipper's well price cost \$2.04 bbl. Shipper's well price cost \$1.94 bbl.
TOTAL common stream Intermediate Sour		378,000.00	1.0928254 X	413,088.00			From shipper's wgt'd avg. well price cost of \$1.96544 deduct .0355134 bbls. credit adjustment plus 1/10¢ service charge.
Shipper "E"	Elk Basin Hwy. do Steamboat Butte	99,000.00 290,000.00	28.3 26.9	.775 .705	76,725.00 204,450.00		Shipper's well price cost \$2.04 bbl. Shipper's well price cost \$1.94 bbl.
Total Shipper "E"		389,000.00	.7228149 #	281,175.00	+ .0355134	+ 13,814.70	From shipper's wgt'd avg. well price cost of \$1.96544 deduct .0355134 bbls. credit adjustment plus 1/10¢ service charge.

TABLE 2—Cont.

OIL SHIPPERS SERVICE, INC.—JANUARY, 1953

1. <u>Grade</u>	2. 99% Bbls. Ten- dered to Platte P.L.	3. <u>Gravity</u>	4. <u>Gravity Differential</u> ¹ <u>Value per Barrel</u> (From Differential) Tables attached	5. <u>Gravity Diff.</u> <u>Value Bbls.</u> (Col. 2 × Col. 4)	6. <u>Debit-Credit Adjustment</u> <u>Per Bbl.</u> shippers' wgt'd avg-gravity diff. value (#), Col. 4, 8	7. <u>Total Value</u> (Col. 2 × Col. 6)	<u>Individual Shippers' Determination of</u> <u>their total crude cost</u>
Shipper "F"							
do	Oregon Basin 71,000.00	*26.5	.685	48,635.00			Shipper's well price cost \$1.40 bbl.
	Byron-Garland 64,000.00	22.9	.474	30,336.00			Shipper's well price cost \$1.50 bbl.
Total Shipper "F"	135,000.00		.5849704 #	78,971.00	— .1023311	— 13,814.70	To shipper's wgt'd avg. well price cost of \$1.4474 add .1023311 bbls. debit adjustment plus 1/10¢ service charge, (Actually the adjusted price of Oregon Basin thru Stanolind buy & sell pro- gram would have to be taken into con- sideration also)
TOTAL common stream	524,000.00						
special sour			.6873015 X	360,146.00			

* Oregon Basin 21° field gravity, originating on Service P.L., in which common stream adjustment has been made prior to delivery to Platte, is taken into clearing house computations on basis of gravity of Service common stream delivery to Platte.

This alternative shows that it is possible to have more than one price posted and yet still satisfy the requirements of equalization accounting. In essence, the only constraint that this type of equalization places upon the industry is an agreement upon differentials based on crude characteristics. It is, therefore, possible to agree on these differentials without agreeing on the level of crude prices. This system allows prices to differ for the same or related crudes and, therefore, does not restrict price competition to the same degree as its Canadian counterpart.

The issue is, as has been stressed, not whether equalization is required, but whether the method chosen to accomplish it had a deleterious effect on competition. Evidence quoted suggests that competition and/or more stringent enforcement of American antitrust laws prevented the industry in the United States from placing the type of constraints on competition that the Canadian industry did.

The uniqueness of the Canadian pricing system was pointed out by Mobil's Canadian subsidiary:

"The feeder transportation systems and the common crude pricing system has led to another *unique* procedure called 'Equalization'. This procedure is based upon voluntary participation by all purchasers whereby the average crude acquisition cost is determined at Edmonton."

(Document # 20354, May 26, 1972, Mobil, emphasis added)³⁰

Two characteristics of the procedure make it noteworthy. First, the adoption of a unique formula ignored the fact that different companies generally place different values on the same crude — either because their refinery technology differs or because they do not produce the same proportion of end products. Mobil noted, in commenting on the relative pricing formula agreed upon by Canadian producers—"for the U.S. no such simple formula exists, nor would it be possible" (Document # 18512).³¹ The second noteworthy feature of the procedure was the extent of inter-firm coordination that was used to establish the average price level. While Imperial administered the system, the formula used was the result of a consensus reached among the shippers on the pipeline system. When complaints arose concerning the appropriateness of the formula there was consultation among the companies concerned at the pipeline level. For instance, in 1959, shippers on Interprovincial complained about the price of mixed blend. Interprovincial summarized the ensuing discussion among the shippers on its pipeline:

"Because of widespread interest in the price fluctuations of the Mixed Blend stream, it was suggested a presentation on the method of pricing this stream would be of value. Mr. Callaway stated Imperial would be willing to make a presentation on the price equalization methods used in pricing Western Canadian crude, explaining the procedures followed. However, Mr. Callaway suggested there might be some

question of collusion in discussing the subject, and took the matter under advisement. He stated Interprovincial would be advised at a later date as to whether Imperial would make such a presentation.”

(Document # 11720, May 6, 1959, Interprovincial)³²

Once more, this excerpt establishes Imperial's role in administering the price formula. It also suggests the nature of consultation that took place. While the exact nature of the decision-making process was not specified in writing, a majority¹ of the shippers — weighted by volume — appears to have been the criterion used.² Whether or not a shipper voted for the actual pricing mechanism that was adopted, its agreement to abide by this decision-making process made it party to the arrangement. Nevertheless, all firms were not all equal parties. In light of the fact that Imperial and Gulf together controlled³ the majority of shipments during this period, their combined vote would carry the day. This is illustrated by several comments on matters that required a consensus of shippers. Ashland noted that with both Imperial and Gulf refusing “to include any part of the Bow River Stream in the Mixed Blend”, this “effectively squashes this as a means of moving Bow River crude” (Document # 137930).³⁵ Shell confirmed Imperial's power when it concluded that increasing its ownership in Interprovincial would have had little effect on the decision-making process because of Imperial's control of crude:

“It seems to me that almost regardless of our ownership position (whether 2% or 7% or even higher) that Imperial Oil are going to call the shot with their large volumes.”

(Document # 43297, November 24, 1972, Shell)³⁶

Notwithstanding the fact that some firms had more ‘votes’ than others in the decision-making process, other firms participated at least to the extent that they consulted with the leading firms on the pricing mechanism that was to be used. Further evidence that consultation existed in the pricing process is provided by examples of inter-firm discussions on prices. These are presented below.

(c) *Inter-Firm Coordination*

The consultative process described above continued throughout the nineteen sixties with Imperial Oil coordinating and implementing pricing decisions. Commencing with the National Oil Policy (N.O.P.), refineries in Ontario were forced to utilize Canadian crude. When offshore crude was removed as a

1. This was not always the case. When Shell in the winter of 1971/1972 requested permission to inject condensate in crude, a unanimous agreement was reported as the requirement (Document # 138758).³³

2. Testimony of Mr. Callaway, Imperial Oil, Calgary Hearings, 1975, pp. 1938-39.³⁴

3. A discussion of crude control and the method by which it was obtained is contained in Section E3.(c) following.

source of competition, but not offshore product, the plight of some Ontario refiners — Canadian Oil, for instance — became critical. How the Canadian price structure accelerated the departure of certain refiners as major competitive forces is dealt with in a succeeding section.¹ What is of interest here is the operation of the pricing mechanism following the implementation of the N.O.P.; for, as a result of constraints imposed upon Ontario refiners by the N.O.P. to use domestic crude, complaints about the price of western crudes at this time became more vehement. Imperial's response was to promise to study the appropriateness of the price structure. Texaco described the situation:

"Imperial Oil Limited stated that in view of the many complaints they are receiving regarding prices for Alberta crudes, they are commencing a lengthy, very detailed study of Alberta crude prices which they feel may result in changes either to the pricing formula used in Alberta or to prices posted for the higher gravity sweet crude. Any change in the prices posted for the lighter sweet crudes would probably result in the lowering of the gravity ceiling possibly from 42° to 40°. A change of this nature would result in a reduction of \$.06 per barrel in the postings."²

(Document # 6782, September 25, 1964, Texaco)³⁷

Of equal interest is the role Imperial played in those few fields in Alberta where certain penalties were imposed upon the price of crude. Here too complaints were channelled through Imperial. An example that demonstrates the nature of Imperial's role is provided by British Petroleum's (B.P.) attempt to remove a 5 cent wax penalty on Pembina crude. It was B.P.'s contention that either the price of Pembina should be increased or that the price of Rainbow/Zama should be decreased because of its "high H₂S content combined with high pour characteristics" (Document # 136455).³⁸ A B.P. official noted how a change in the price of either Pembina or Rainbow/Zama might be accomplished by discussing the matter with Imperial:

"We are most reluctant to work in concert with other potential users in attempting to establish a price policy for purchasing oil in this area. You will appreciate there are serious implications of such a manoeuvre. It might be worthwhile to seek advice from Langelier [B.P. legal counsel] on the impact if any (re Federal Combines Legislation).

"However, we do feel we would be justified in approaching Imperial regarding our position. Through the course of several discussions it should be possible to present a very strong case to Imperial for either a reduction in Rainbow/Zama, ^[3] or an increase in Pembina and Sturgeon Lake."

(Document # 136455, August 23, 1967, B.P.)⁴⁰

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1. See Section F entitled 'Detriment and the Relative Price Structure'.
 2. This document illustrates the manner in which a manipulation of the pricing formula could be used to affect the average price level.
 3. B.P. indicated (Document # 136457)³⁹ that it felt Imperial would resist a penalty on Rainbow because it was one of the "strongest producers/users".

The response to this request is of equal significance for it indicates not only that the producing companies discussed prices among themselves, but also that there was an asymmetric distribution of decision-making power within the industry. It suggests, there was a two-tiered system in the industry with Imperial on one side and the rest of the industry on the other. The following excerpt indicates that B.P. considered discussing prices with other non-producers before approaching Imperial. The reply to the above query from British Petroleum's eastern head office was:

"We are fully aware of the implications of discussing prices with our competitors. However, as you probably know, with the single exception of Imperial Oil, price information is very discreetly communicated from company to company; and I am sure you realize that it was in this context that I suggested the possible discussions with non-producers/potential users of Rainbow/Zama. Naturally, I do not plan to discuss this matter with Langelier, [B.P. legal counsel] and price discussions with any of these people must be at your discretion."

(Document # 136454, August 25, 1967, B.P.)⁴¹

The extent of inter-firm communications on prices that is alluded to in this quotation was investigated further at hearings before the Restrictive Trade Practices Commission at Calgary, Alberta in 1975. The responses elicited from industry personnel illustrate how price information was communicated among the companies. Mr. Rogers, of B.P. and later of Hudson's Bay Oil and Gas, was questioned on the document from which the above excerpt was taken:

"Q. '...However, as you probably know, with the single exception of Imperial Oil, price information is very discreetly communicated from company to company; and I am sure you realize that it was in this context that I suggested possible discussions with non-producers/potential users of Rainbow Zama [sic]. Naturally, I did not plan to discuss this matter with Langelier, and price discussions with any of these people must be at your discretion.'

First of all, Mr. Rogers, did you know that with the exception of Imperial Oil that price information was discreetly communicated amongst companies?

A. I don't quite know what he means by 'discreetly'.

Q. Was price information discussed amongst other companies?

A. Yes.

Q. What form did these discussions take?

A. I think it is fairly common for a company to phone and ask another company what their price is at a particular point in time, and in the event of a price change that has been initiated by someone else, to ask that same company whether or not they are going to adjust their price.

Q. Have you ever participated in the types of discussions you have just referred to with other companies?

A. Yes, I have.

Q. Did you ever do so while you were with Imperial Oil?

A. No, I don't think I did.

Q. Did you ever do so while you were with B.P.?

A. I would think I had on occasions when prices were changing.

Q. What kind of prices would be changing which would result in your getting into these price discussions?

A. Well, just looking back here, in the time frame we are looking at, the only discussions that would be taking place would be those concerning such things as quality adjustments on Rainbow Zama [sic], Pembina and Sturgeon Lake. There did not appear to be any price changes during the years 1962 to 1970. So, therefore, I would have to say that the only discussions I would have would be on quality for specific things like this.

...

Q. Did you ever have occasion to discuss prices with other companies since you have been with Hudson's Bay?

A. Other than at times when there was a general increase announced in the press, I would say no.

Q. And when a general increase was announced to the press what form would your discussions take?

A. Well, I might phone one of the representatives of another company and ask them if they were going to adjust their price to meet that change.

Q. This would have been a change initiated by someone other than yourself or Hudson's Bay and other than the person to whom you were speaking?

A. Yes.

Q. And the purpose of your call was to try and find out the intention of that other company with regard to following the price change that had been announced by someone else? Is that correct?

A. Could you give me that question again?

Q. My question is: the discussion which you had with the representative of another company, it had to do with the intentions of his company in deciding whether or not they were going to follow a price change announced via another company, neither yours nor the company that you were speaking to?

A. That was the purpose of the call. Frequently you would not get the answer to the question because they would not know.

Q. Did you ever get an answer to that question that you posed?

A. If they had already obtained approval from their senior management to adjust their price we could have, yes.

Q. And based upon that information what did you do?

- A. I would advise our management that there was a change in the price and we should be evaluating our position, and I might make a recommendation at that time as to how I thought our company should respond.
- Q. Did you ever receive telephone calls from representatives of other companies with regard to whether or not Hudson's Bay was going to follow a price change announced by someone else?
- A. Yes, I have.
- Q. Who, for instance, would have called you?
- A. I cannot specifically remember the individuals, however, I know I have been called whenever there has been an announcement of a change in posting and I have always had to advise them that it is under advisement.
- Q. Did you receive many telephone calls after the announcement of a price change by someone?
- A. Oh, you could receive four or five.
- Q. When you placed a telephone call to another company to find out what their reaction was going to be to a price change, would the answer that that individual gave you have any effect on the policies of Hudson's Bay Oil and Gas?
- A. I don't know, because I do not set their policies.
- Q. Would it make any difference with regard to your recommendations?
- A. There have been occasions when after knowing of increases, I have made recommendations to change our price by a different number, so to the extent that I disagreed with the other company's evaluation of the market at that time. I guess you could say yes; it did affect my thinking.
- Q. And on those occasions when you recommended a change of a different order from the one announced, was your recommendation acted upon or was some other price change effected?
- A. There have been both cases.
- Q. Can you recall one specifically where your recommendation was accepted?
- A. Yes, I recommended that Hudson's Bay attempt to get a higher value for medium crude being produced in Saskatchewan and we did pay a 10-cent per barrel premium above the other prices being paid in the area, and I think that was back in late 1970, and we sustained that until February 1st, 1971, at which time we had to cut our prices due to the fact that the market would not support the higher price."

(Testimony of Mr. Rogers, Manager of the Crude Supply and Gas Products Division, Hudson's Bay Oil and Gas, and previously, Assistant-Manager of Crude Supply, B.P., Calgary Hearings, 1975, Vol. XIV, pp. 1583-9)⁴²

The following excerpt from the same hearings also describes the communications that occurred before price changes. In response to a question as to why Gulf was certain Hudson's Bay would follow its price increase, the following explanation was given:

“Q. ... Where would you obtain the information that Hudson’s Bay was going to be meeting the price which your company had established for condensate?”

A. Someone would have been discussing this with some of the Hudson’s Bay people. As I say, once we make a decision to change a price, we then advise everybody.

...

Q. Was it a common thing for someone in your staff or in your department to communicate such a price increase for a reaction with representatives of other companies?

A. Yes. The same with crude prices, after we have taken the action we call the Oil Daily and the newspapers and send out copies of our bulletins to everyone and as I say, as a matter of courtesy to some of the people we are dealing with and we advise them that there is a bulletin in the mail or that they can come and pick one up.

Q. Is the same courtesy extended to your company when another company changes its price?

A. Normally.

...

Q. Is there any other reason, other than as a matter of courtesy as you have stated for having a discussion of this type with your competitors?

A. No, I cannot think of any reason. We might, of course, be trying to win support for what we have done if we have initiated a price. We might hope that other people would go along with us.

Q. What difference would the support of other companies make to your position?

A. *It would make our position more solid. It would make our prices stand if we had initiated the action.”*

(Testimony, Mr. R.C. Turner, Manager of Domestic Crude and NGL Supplies, Gulf, Calgary Hearings, 1975, Vol. XV, pp. 1686-9, emphasis added)⁴³

These examples demonstrate that price communications provided an integral part of the price setting mechanism. This mechanism featured a well organized system of price announcements and reactions from other companies which were used to coordinate pricing initiatives.

There are other examples of direct communication on prices between industry members. In November of 1970, Great Northern announced a price increase for Saskatchewan crude to be effective December 1, 1970. Yet, on November 30th of that year the price increase was rescinded. The reason, Shell noted, was that they “were concerned that other companies were not going to follow” (Document # 21437).⁴⁴ Imperial had conveyed a similar message some four years earlier when it prepared a communique stating it would not follow Great Northern’s lead in posting a general price increase in Saskatchewan (Document # 91090).⁴⁵ Imperial described its actions at the time:

"As discussed, a notice was published stating 'Imperial Oil Limited believes there is no justification at the present time for increases in crude oil prices which have recently been posted for certain fields in Alberta and Saskatchewan'. The intention was to definitely not increase on the S.E. Saskatchewan (light) or the Weyburn/Midale (medium) and to observe Industry [sic] reaction on the Bowbell and Foster-ton. . . ."

(Document # 91088, December 19, 1966, Imperial)⁴⁶

There are other examples of even closer coordination of pricing changes. In British Columbia, advance information on price changes was exchanged in order to coordinate moves. The following document indicates the nature of the industry's attempt to reduce uncertainty when price changes occurred in 1968. At this time, supply exceeded demand for British Columbia crude. Imperial, Gulf, and Shell discussed the problem and decided on a 10 cent per barrel price reduction. The reduction required coordination. Shell recounted the way in which this was accomplished:

"BA has reduced price for BC Light 10 cents per barrel effective May 1. Original bulletin indicated a 5 cent reduction however BA verbally advises corrected bulletin will be issued today. Upon receipt of same we propose to meet their reduction and request authority to do so."

(Document # 24486, April 25, 1968, Shell)⁴⁷

Similarly there were discussions between firms prior to the wellhead price increase led by Imperial in early 1972. These followed a revision in Interprovincial's pipeline tariff. Prior to Imperial's posting, Gulf was informed of Imperial's intended increase and discussed the matter with Imperial. Gulf disagreed with the size of the increase, and following discussions with "local representatives of the integrated companies" it decided against pursuing a change in the posting Imperial would make (Document # 137261-2).⁴⁸

The above examples show that some price moves were communicated in advance and discussed. They also illustrate the nature of the decision-making process. They are consistent with other information that indicates the industry essentially operated on two planes. As B.P. noted, with the exception of Imperial, price information was discreetly passed from one company to another. Gulf's discussion of the 1972 increase indicates how Imperial was tied into these discussions. Imperial was the dominant firm and the price leader. The remaining firms coordinated themselves and then made representations to Imperial. Liason between the two groups was accomplished both by direct contact through Gulf, and also through the intermediation of Interprovincial Pipe Line during shippers' meetings where the pricing formula was discussed.

Therefore joint decision-making as to the absolute price level paralleled what took place on special streams, mixed blends and relative prices. The industry's decisions do not correspond perfectly with the predictions of either the monopoly model, or the normal conspiratorial oligopoly model. Elements of

both can be found. Imperial made most of the decisions because of its dominant position; however, it did not act unilaterally but consulted and made agreements with the other firms. To the extent that the other firms had no choice but to acquiesce, the decisions resemble the predictions of the monopoly or dominant-firm model. However, the illustrations suggest the process was not completely one-sided. Where Imperial did consult, at least with some of the larger firms such as Gulf, the decisions resemble the predictions of the conspiratorial model.

This section has provided an overview of the main price setting mechanism. The examples cited illustrate aspects of the relationship between Imperial and other crude purchasers. They highlight the consultative process that was an integral part of the pricing mechanism. This central mechanism did not apply to every barrel of crude oil produced in western Canada. But it was sufficiently comprehensive to provide the key element that allowed the industry to establish Canadian crude prices. Moreover, when it did not suffice, the industry developed other methods to support this price setting mechanism. In the following sections, developments in the pricing of heavy crudes and condensates that supplemented the pricing mechanism just discussed will be examined.

C. *Subsidiary Arrangements*

1. *Introduction*

The first section has outlined that the key to the price setting mechanism was the equalization agreement adopted by the industry. The actions of the industry in the peripheral markets such as heavy crude, where the central pricing mechanism did not apply shed further light on the mechanisms that were used to restrict price competition. In these areas, the industry used a number of secondary mechanisms whose purpose was to prevent price competition from developing. By detailing how the industry isolated and contained the competitive forces in these sectors, subsequent sections provide corroboration of the anti-competitive effect of the industry's arrangements and show the manner in which the market process was circumvented in the production sector.

The effect of accommodations that served to restrict the competitive process in both the heavy crude and condensate markets extended beyond these sectors. It was recognized by the industry leader — Imperial — that prices in one sector could influence prices in others. For instance, in relationship to the Pembina-Rainbow/Zama case discussed above, by May of 1969, Imperial was persuaded to remove the penalty it had previously imposed in order to "save" its "control of approximately 50 MB/D of this essential crude type" (Document # 139692).⁴⁹ But in doing so it noted that it endeavoured to accomplish this in such a way that it did not have ramifications on the whole price structure:

"It is very important that the change in posting for Pembina crude is announced in such a way that it will not disturb other pricing relationships in Western Canada."

(Document # 91121, April 9, 1969, Imperial)⁵⁰

Thus maintenance of the price structure required constant vigilance and adaptation to changing circumstances. The stability and effectiveness of the main pricing mechanism was due in part to the production controls associated with the prorationing system in Alberta. However, prorationing was not sufficient to maintain the price structure. Several segments of the industry — Saskatchewan crude, heavy crudes in Alberta, and condensate — were not generally prorationed. To the extent that these products were substitutes for Alberta crude, any expansion of production and/or reduction in prices in these sectors could adversely affect the pricing formula that applied elsewhere.

Imperial acknowledged this phenomenon in 1966 when considering the effects of an increase in the price of Saskatchewan light crude. It observed that such a change could affect the prices of other light crudes:

“Effect on Other Light Crude Prices: With all light crudes on the gravity, sulphur pricing bases an increase in S.E.S. [South-East Saskatchewan] light raises serious questions on the other light crudes.”

(Document # 91095, December 8, 1966, Imperial)⁵¹

That substitution possibilities existed was recognized by Mobil. In 1964, Mobil observed that the expansion of heavy crude production could “trigger reductions in the general level of Canadian crude prices”:

“The Canadian Government conceivably could encourage heavy crude production by earmarking some or all of the Montreal market for heavy crude supply. Even if this were done, the price at Montreal would probably be made competitive with overseas foreign imports if past procedures are any guide. We doubt that, with the long haul involved, the resultant heavy crude wellhead price would be economically attractive. If it were, and if substantial volumes moved to Montreal, there is then a possibility that the heavy crude price might trigger reductions in the general level of Canadian crude prices.”

(Document # 18525, July, 1964, Mobil)⁵²

The manner in which the industry solved the threat to the general level of prices posed by Saskatchewan and other heavy crudes is developed at length in succeeding sections. The examples cited herein support the observation that influential firms were cognizant of the potential impact that non-prorated crudes could exert on the general level of prices. While these crudes may not have accounted for a large share of total industry production, each offered potential competition and posed a threat to the general crude price structure. Thus any device which would reduce the competition that these crudes provided takes on special importance when viewed in this light. Together, the main pricing mechanism that was used to determine the average level of crude prices for most of the industry, and the secondary mechanisms served to restrict price competition.

2. *The Pricing of the Condensate Surplus*

(a) *Introduction*

The condensate market provides an example of the manner in which the industry used its consultative mechanism to localize the effect of a surplus of a substitute for crude oil. Shippers' meetings provided a forum at which consensus was achieved and equalization was the instrument used to forestall price erosion when condensate surpluses developed in the early nineteen seventies. Contrary to both the Saskatchewan and heavy crude situations, which were to be handled differently, the condensate surplus was managed by adopting the same mechanism that was used to control the Alberta light crude price structure. "Condensate" refers to a range of hydrocarbon feedstocks that do not come from a separate oil zone, but that exist as gas in a reservoir and condense as the pressure of the gas is reduced during production. Essentially, condensate is a by-product of the production of natural gas¹—as described in the following way by the Alberta Energy Resources Conservation Board:

"Prior to the completion of major gas pipe lines to markets outside the Province, production of condensate and pentanes plus was confined to the by-products of plants which were processing raw gas for local use and represented less than one per cent of the crude oil market. However, with the advent of extraprovincial gas marketing on a large scale basis, numerous plants were built to process the gas for the removal of natural gas liquids so that the gas would meet purchasers' specifications. In addition cycling plants to process natural gas containing large percentages of natural gas liquids were built to permit the conservation and marketing of these liquids. The dry gas which remains after removal of the liquids in cycling plants is returned to the reservoir and in some cases is supplemented with dry gas from other fields to achieve pressure maintenance and thus increase the percentage recovery of natural gas liquids in the reservoir."

(Oil and Gas Conservation Board, "Report and Decision on Review of Plan for Proration of Oil to Market Demand in Alberta", *OGCB Report 64-10*, July 1964, pp. 55-6)⁵³

As a feedstock, condensate normally produces a large quantity of low octane straight run motor gasoline (mogas), jet fuel, L.P.G.'s, and ethylene base derivatives. As a refinery feedstock, condensate shares many of the same characteristics as crude oil in that both are hydrocarbons. Condensate can be mixed with crude and refined as a blend. What distinguishes the two is the fact that condensate more readily produces more of the lighter end products. Therefore the acceptability of a condensate to a refiner is a function of desired

1. More specifically the Alberta Oil and Gas Conservation Act, section 2.(1)8. defines condensate as a mixture mainly of pentanes and heavier hydrocarbons that may be contaminated with sulphur compounds, that is recovered or recoverable through a well from an underground reservoir and that may be gaseous in its virgin reservoir state but is liquid at the conditions under which its volume is measured or estimated.

yield and the feedstock for which a refinery is designed. A refiner with greater demand for middle distillates and heavy fuel oils will not be able to meet this demand if he is suddenly faced with a disproportionate amount of condensate. This problem is described by an official of Chevron Standard:

"... if condensate is injected into crude in volumes in excess perhaps of 5 percent, say, then it changes the composition of that crude barrel to an extent that it overloads perhaps a top of the fractionation tower. That there is too much condensate or naphthas or gasoline which would be up at the top of the tower and because the bottom of the tower is not being used, he still cannot get the crude through that tower that he otherwise would like to and say that refiner is geared and wishes to achieve a thousand barrels a day of motor gasoline perhaps and with that thousand barrels a day of motor gasoline maintain the other products out of that barrel, diesel fuels, heating fuels, and residual fuels, say, the fact that his hardware limits him to taking off a thousand barrels a day of gasoline that is coming at him anyway because it has been spiked into the crude, he gets less diesel, heating oil and residual fuels out of that piece of equipment."

(Testimony of Mr. D.P. Geddes, Manager of Crude Oil Gas and Plant Product-Sales, Chevron Standard, Calgary Hearings, 1975, Vol. XVIII, pp. 2062-3)⁵⁴

During the early nineteen seventies, condensate was not subject to prorationing by the Province of Alberta. Since over 98 per cent of all gas processing plant capacity for the production of condensate was within Alberta (Oilweek, January 24, 1972),⁵⁵ this resulted in an unregulated condensate market. One reason for the lack of regulation was that most of the condensate was obtained as a by-product of natural gas production, and any prorationing would affect the production of natural gas — a situation that was especially undesirable in the winter months. Secondly, the Alberta Energy Resources Conservation Board, in 1964, forecast that condensate was not likely to account for more than 10 to 15 per cent of the total market.¹ At that level of production, condensate was unlikely to create much of a problem for the crude price structure.

Because of the refining technology and the institutional structure, rapid increases in condensate production created marketing problems. First, the Alberta prorationing system operated so as to support the crude price in the face of a short run expansion of condensate production. Condensate production, under the Alberta prorationing system, was assumed to be marketed completely and deducted from total nominations for crude oil to determine how much crude would be produced. In the short term, therefore, there was no incentive for one crude producer to decrease his price to compete with condensate production. However, in the longer term, if condensate production expanded dramatically there would have been pressure placed on the crude price structure as a whole.

1. Oil and Gas Conservation Board, "Report and Decision on Review of Plan for Proration of Oil to Market Demand in Alberta", *OGCB Report 64-10*, July, 1964, p. 58.

Secondly, in the early nineteen seventies, the U.S. import quota placed additional pressures on the Canadian crude price structure. Condensate, like crude oil, can either be shipped separately or blended with other crude types. The U.S. import quota imposed a ceiling on “crude and unfinished” imports; therefore, an increase in the proportion of condensate in mixed blends that were exported to the U.S. excluded potential exports of crude (Document # 111449).⁵⁶ The American market offered higher net returns from the sale of crude because of the protection offered this market by the U.S. import quota;¹ thus, when condensate backed out crude destined for the export market, it placed additional pressures on the crude price structure.

Finally, the expansion of condensate presented competitive pressures on the industry because of the short run inelasticity of demand for this hydrocarbon. Because of the inflexibility of refinery technology, a refinery producing a balanced output of different products faces severe problems as the percentage of condensate that is included in crude increases. Figure 2 indicates the nature of the penalty as estimated by Shell. An injection of approximately 10 per cent condensate to this company’s crude intake resulted in a 30 cent per barrel penalty; adding 20 per cent resulted in approximately a 51 cent per barrel penalty. Therefore, in the short run, fluctuations in the condensate supply portended dramatic changes in condensate prices.

These changes in condensate prices threatened to affect the crude price structure, a fact well appreciated by the industry. Since light crude oils and condensate are substitutes to a varying extent for different refiners², the prices of condensate and light crudes are interdependent. In the early nineteen sixties, various solutions were adopted to avoid price disruptions as condensate production increased. Shell’s surplus condensate position was a consideration in its decision to acquire North Star and thereby provide an outlet for condensate without causing price instability in the production sector (Documents # 41807-9).⁵⁹ Other outlets for increasing condensate production were found in export markets:

“Condensate competes directly with crude oil and especially with light crude. The applicant proposes to move it into a receptive area with minimum disruption of crude oil markets, and to do this it must move south.”

(Document # 137376, November 2, 1961, Gulf)⁶⁰

Similar considerations were in evidence in the late nineteen sixties. Shell, in considering whether it should press for the prorationing of condensate,

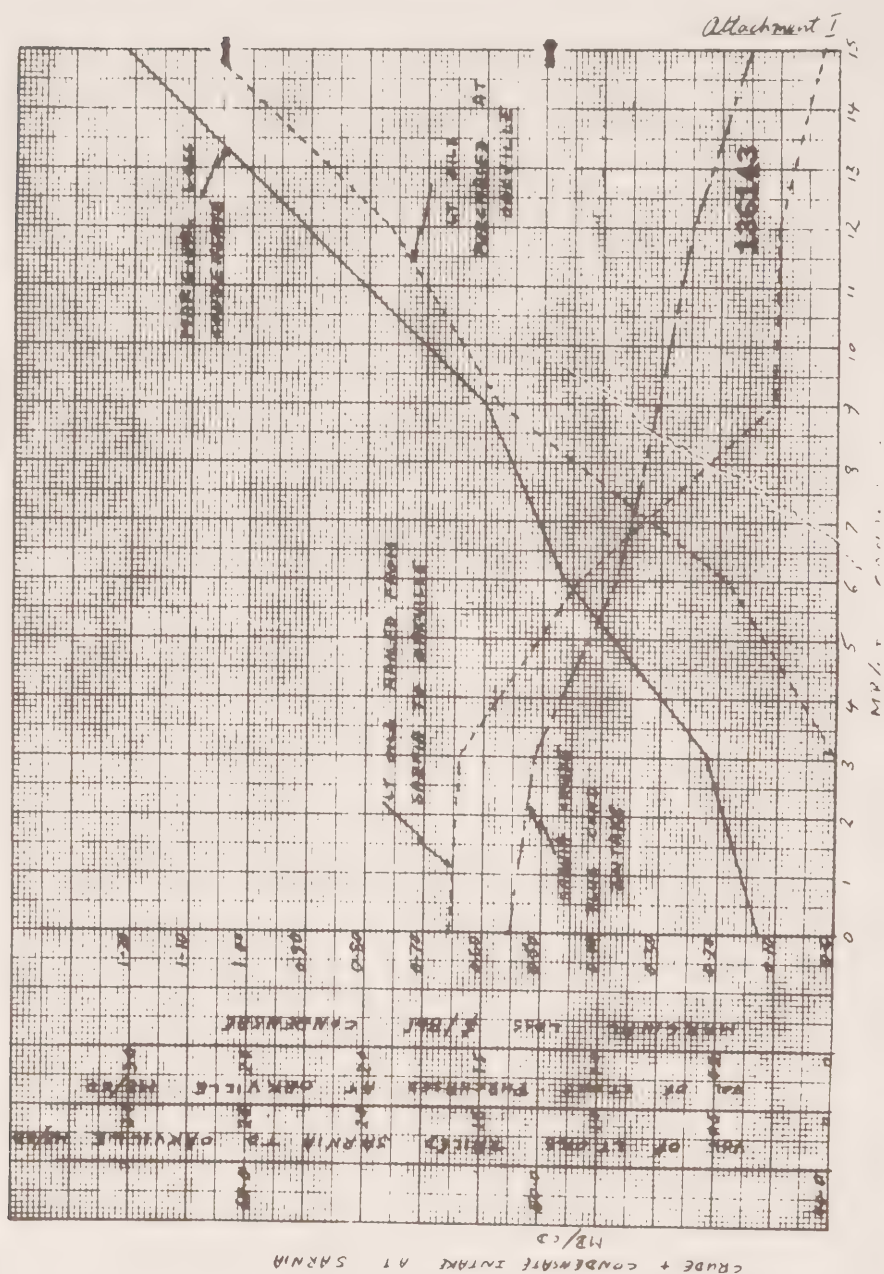
-
1. See the volume entitled ‘Overview’ for a description of the course of prices in the U.S. market compared to Canada.
 2. Some refineries cannot run condensate on a blocked (separate) basis; only as part of a crude stream. However, others can run it separately (e.g. Imperial’s Regina and Winnipeg refineries) (Documents # 139702, # 139751).^{57, 58}

FIGURE 2

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CONDENSATE PENALTIES FOR REFINERIES



(Reproduction of Document # 136143
'Figure 2' and addition to title added)

noted that a prime consideration would be the amount of condensate that could be produced without causing crude oil prices to fall:

“To assist in deciding what position Shell should adopt on this matter, [prorating of condensate to market demand] we believe it is vital to know your estimate of the total amount in barrels per day of this type of liquid hydrocarbon that could be marketed by the industry in the foreseeable future without disturbing the crude oil price structure.”

(Document # 136152, March 21, 1969, Shell)⁶¹

During the early nineteen seventies, the effect of condensate prices on the general price structure continued to receive attention. In discussing possible solutions to the condensate surplus that evolved at this time, Imperial indicated that condensate discounts threatened, in some circumstances, to impinge on the “basic” price structure. In response to a query as to “whether significant discounts could be placed alongside a normal market for a full quarter without affecting the basic pricing structure”, Imperial “agreed that a real danger of this type existed — more so under the present circumstances” (Document # 111449).⁶²

Two separate episodes outline how the equalization system was involved in the prevention or delay of downward adjustments in condensate prices as market conditions changed.

(b) *The Condensate Surplus in the Summer of 1970*

In the summer of 1970, Texaco Exploration Canada Ltd. (Texex) attempted to reduce the price it paid for crude streams that included condensate. Effective June 1, Texex announced that it would pay 10 cents per barrel less for condensate commingled with “Texaco Stream crude and also for condensates commingled and equalized with any other Alberta crude stream purchased and used by Texaco” (Document # 138093).⁶³

At the time, only 10 per cent of the condensate produced in the province was blended prior to reaching the refinery. It was recognized that this pricing move had “serious implications” for the industry. Hudson’s Bay Oil and Gas sent a letter to a number of firms stating:

“While the effect on the cost of the stream is minimal, we believe acceptance of Texaco’s proposal has other more serious implications.”⁶⁴

(Document # 138091, June 11, 1970, Ashland)⁶⁴

Hudson’s Bay Oil and Gas spelled out these implications in detail. It felt that, if the new lower price for blended condensate was established, it would spread to the rest of the condensate market:

1. Copies of HBOG’s letter expressing concern were sent to Ashland, B.P., Gibson, Imperial, Murphy, Shell and Sun Oil.

"You will recall that at the last Management Meeting I reported a move by Texaco to reduce the price of condensate blended into crude streams by 10¢/bbl. effective June 1, 1970. This would affect HBOG's production primarily at Brazeau where our condensate is shipped in the Pembina Pipe Line crude stream. . . . *More serious it could become the chink in the armour that would bring on a general price reduction on condensate back to the level of 42° sweet crude, thus eliminating the 10¢/bbl. premium we now enjoy.*"

(Document # 14829, June 17, 1970, Hudson's Bay Oil and Gas, emphasis added)⁶⁵

During hearings before the Restrictive Trade Practices Commission the implications were further explained:

"... there were many refineries who were blending condensate intentionally, and I am not sure what that percentage was at that time, but it was fairly significant and they did not require it on a segregated basis. It was our concern that this could spread to affect condensate blended in that manner, as well. In other words, it could affect a large volume of condensate being sold. It was sold on a segregated [basis] — but the companies were intentionally blending it."

(Testimony of Mr. Rogers, Manager, Crude Supply and Gas Products Division, Hudson's Bay Oil and Gas, Calgary Hearings, 1975, Vol. XIV, p. 1553)⁶⁶

As a result of industry pressure — exerted by Gulf and HBOG primarily — the price decrease announced by Texex was delayed. An HBOG communication recounted:

"You will be pleased to learn that we have been successful, with major help of Gulf, in pressuring Texaco to defer any action at least until August 1, 1970."

(Document # 14829, June 17, 1970, Hudson's Bay Oil and Gas)⁶⁷

In the interim, Gulf proposed to Texex that meetings be held with the shippers and the users of the various streams that would be affected by Texex's price change (Document # 135751).⁶⁸ In the summer of 1970, Gulf called a meeting of Texex and other shippers on the Pembina Pipe Line (Document # 135751)⁶⁹ — Ashland, B.P., Gibson, Hudson's Bay Oil and Gas, Murphy, Mobil, Shell, Sun Oil, and Imperial (Document # 18610).⁷⁰ Those in attendance agreed that Gulf would poll the shippers by letter to achieve a consensus on the price to be used for condensate injected into crude oil on the system. The exact decision-making rule was not formally specified, but Gulf indicated it understood Texex would be satisfied with any position that had the support of 75 per cent of the shippers (weighted by volume) (Calgary Hearings, 1975).⁷¹ Gulf, however, had the power to decide what it would regard as a consensus (Calgary Hearings, 1975).⁷²

Gulf chose not to make any change when 60 per cent voted by formal letter and Imperial informally requested that there be no changes. The following attached letter (Document # 136770)⁷³ from Gulf informed Texex of the

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September 9, 1970.

Texaco Exploration Company,
Post Office box 3333,
Calgary, Alberta.

Attention: Mr. J. L. Turcotte.

Dear Leo:

Further to Mr. McRobb's conversations with your Mr. Foster of August 7th, at which time it was indicated that, of the shippers on the Pembina Pipe Line voting by formal letter, 60% of that volume represented by the shippers voted in favour of a status quo. However, Imperial Oil, who is the largest shipper, voted informally (verbally) that they wished the Pembina equalization to remain unchanged until at least September 1st to allow time for full evaluation.

Based on this industry position, we indicated that September 1st would be the earliest date for initiation of any changes.

As of this date, Imperial Oil have again indicated that it is their desire that the equalization remain unchanged for another month, namely until October 1st, 1970.

On a month to month basis, Texaco's established criteria of a 75% majority in favour of the status quo is established, and to this end we plan no change in the equalization statement prior to October 1st.

As soon as Imperial's formal vote is received, Texaco will be advised of their decision.

Yours very truly,

K. C. Turner

K. C. Turner.

LM:db

bcc: Mr. N. R. Callaway,
Imperial Oil Limited,
Calgary, Alberta.

File: T 11.1

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decision.' It is clear that Imperial avoided written communication with Gulf, but informally indicated that it wished Gulf to postpone the decision. In an internal memorandum, Imperial indicated that:

"Basically we are in agreement with Texaco's pricing base for commingled condensate. . . .

"As you know, we are in complete agreement with a base price of \$2.90/bbl. for commingled condensate and natural gasolines and have used this base price in the three condensate contracts we are currently negotiating. . . ."

(Document # 124158, June 12, 1970, Imperial)⁷⁴

Imperial, however, did not vote for the Texex proposal and, by its abstention, delayed any change.

Imperial's strategy may be deduced from other evidence and actions that it took shortly thereafter to increase the price of crude oil. Imperial, while not a major condensate producer, was the largest crude producer. Evidence has already been adduced that shows that Imperial was the price leader and that it attempted to implement price changes in such a way that the crude price structure would not be disturbed. In light of its perception of the effect that a decrease in prices in one area would have on another, Imperial's position can be explained by the fact that it was already planning to increase crude prices. Any weakness demonstrated in condensate prices prior to the increase would have had a negative effect on its plans to raise crude prices.

In December 1970, Imperial increased the price of Canadian crude by 25 cents per barrel (Document # 139207).⁷⁵ At that time, Gulf, who was the price leader for condensate² (Calgary Hearings, 1975),⁷⁶ posted new prices for commingled and segregated condensate that decreased the relative price of segregated condensate relative to 42° API crude by 10 cents per barrel and that penalized blended condensate an additional 10 cents per barrel (Document # 139187).⁷⁹ Table 3 summarizes the changes.

1. A copy of this Gulf letter was forwarded to Imperial.
2. Gulf's leadership role in condensate is confirmed by the following quotation from Ashland:

"All major purchasers of Canadian crude oil and condensate increased posted prices effective May 1, 1953, [sic] following Imperial Oil which first announced the boost of 25¢ for crude. Gulf Oil Canada Ltd. established the 35¢ increase for condensate."

(Document # 138035, May 22, 1973, Ashland)⁷⁷

A Texex document also substantiates Gulf's leadership in this area. Texex notes:

"Gulf Oil increased price paid, effective Nov. 1/72 for unblended condensate at Edmonton from \$3.16 to \$3.26 per bbl. . . . Gulf controls about 20% of condensate at Edmonton and based on past experience increased price will be offered by others industry [sic]."

(Document # 135995, October 30, 1972, Texex)⁷⁸

TABLE 3

CHANGES IN PRICE OF CRUDE AND CONDENSATE
(\$/bbl)

<i>Crude or Condensate Type</i>	<i>Price Prior to 1/1/71</i>	<i>Effective 1/1/71</i>	<i>Change</i>
42° API crude ¹	2.90	3.15	+ .25
Segregated Condensate	3.00 ³	3.15 ²	+ .15
Blended Condensate	3.00 ³	3.05 ²	+ .05

Source: 1. Document #139207, Imperial⁸⁰

2. Document #139187, Imperial⁸¹

3. Document #138091, Ashland.⁸²

Therefore the new relative price structure was eventually put into effect, with the price of condensate, both segregated and commingled, reduced relative to crude. But since it was done at a time when there was a general realignment of prices, it would have placed minimum pressure on the price structure.

This process had two adverse effects. First, in this specific case, the arrangement delayed a price change that in light of events was clearly appropriate. With this type of inertia in the decision-making system, there was no guarantee that the new price was itself appropriate for the circumstances. Indeed, subsequent events, that are dealt with below, suggest that circumstances had changed so as to make the new price inappropriate. Secondly, this example highlights a fundamental characteristic of the equalization system as it was operated in Canada, namely that it forced a consensus on the absolute level of prices. Even though Texex ascertained that the value of one refinery input had changed relative to other inputs, the equalization system that had been adopted forced meetings to be held and agreement on the price of blended condensate to be reached. It is important to recall that, while equalization *per se* might have been necessary, the type adopted by the Canadian industry was not. This instance shows how the type of equalization that was adopted, effectively served to coordinate pricing decisions in the industry.

(c) *The Condensate Surplus of the Winter of 1970-71*

Even with the announcement in December, 1970 of the new relative prices of condensate and crude, it was clear that the prices chosen were inappropriate. A surplus of condensate developed in early January 1971 that once again threatened the price structure.¹ This crisis illustrates once more how

1. The demand for condensate is a derived demand based on the demand for gasoline. The supply of condensate is related to the production of natural gas. The demand for the former peaks generally in the summer, the supply of the latter in the winter. Therefore the condensate demand and supply peaks are out of phase and a surplus can develop in the winter season.

the equalization system — this time on Interprovincial Pipe Line — was used to maintain condensate prices. In the previous instance, equalization was required since the amount of condensate being injected on the Pembina system was probably not large enough to be batched separately. In this instance, the amount of condensate could have been batched and sold separately. The industry chose not to do so. By blending it, given the type of equalization system adopted, agreement on the price of condensate was required. In turn, this allowed the industry to prevent the price of condensate from falling to levels that would have threatened the whole crude price structure.

The condensate surplus had begun to develop in the late Fall of 1970, and became acute in early January, 1971 (Document # 136139).⁸³ Shell had the largest proportion of the surplus and, at first, was unsuccessful in having the surplus condensate blended into Interprovincial's mixed blend streams (Document # 136139).⁸⁴ However, by January, the lack of markets for condensate caused Interprovincial to refuse further shipments of condensate. This threatened gas production and the gas supplies of Alberta and Saskatchewan as well as Trans-Canada Pipe Lines and resulted in an emergency meeting of the Alberta Energy Resources Conservation Board. The government made it clear that it would not prorate gas production to solve the industry's problem. As a result, the industry was faced with finding an internal 'solution' to the condensate surplus.

The industry had two choices. It could batch the condensate separately or blend it in crude. If it chose the latter, then a price for the condensate would have to be agreed upon because of the nature of the equalization scheme that had been adopted by the industry. The discussions among the industry at this time focused on the need to prevent price erosion. By "dumping"¹ the condensate into the mixed blend, the industry could force an agreement on prices and prevent substantial condensate price erosion. In turn, preventing a condensate price decrease would ease pressure on the crude price structure. Imperial outlined the general philosophy that prevailed in the early nineteen seventies:

"A number of companies have aligned themselves with Shell's philosophy — grudgingly accepting the concept of a discount into crude rather than the alternatives of greater discounts into new markets (which might have repercussions on the base market price) or the possibility of curtailed production."

(Document # 111448, January 3, 1972, Imperial)⁸⁶

What needs to be emphasized is both that the industry was cognizant of the effects of price competition from condensate and that it chose to arrange the shipment of this refinery input in such a way that a price had to be agreed upon. There appears to have been no technical necessity for acting in this way, for a

1. Shell's terminology (Document # 136158)⁸⁵

year later, in a similar situation, condensate was not “dumped” in the mixed blend stream; it was batched separately.

In order to avoid disrupting gas production in mid-winter the Conservation Board convened several meetings of the shippers in order to resolve the ‘problem’. However, the critical negotiations were carried on at a meeting with only Imperial, Gulf, Shell, and Hudson’s Bay Oil and Gas in attendance. It was at this meeting that the decision to blend the condensate with crude oil was made (Document # 136140)⁸⁷—a decision that then required an agreement on price. Once again this illustrates the hierarchial nature of the decision-making process in the industry. At the head was Imperial who along with Gulf, purchased more than 50 per cent of crude oil and controlled the content of the mixed blend streams.¹ On the other hand, Gulf, HBOG and Shell were the major producers of condensate and exercised control over more than 50 per cent of the condensate produced in Alberta.²

After a decision was reached to blend the condensate, a decision on the price to be charged was still required. Subsequent discussions about price involved a wider range of companies. Imperial and Mobil felt the price should be no more than \$2.95 per barrel, Texaco argued for a price as low as \$2.50 per barrel (Document # 136141).⁸⁹ The major producers such as HBOG and Shell did not want to see any price erosion from the existing level of \$3.15 per barrel for segregated condensate at Edmonton (Document # 136430).⁹⁰ Shell’s position was that if the price for the surplus that was going to be blended fell, then prices elsewhere would decline:

“The price should not be adjusted for this interim period as it could have an overriding effect on the entire price structure for condensate.”

(Document # 136430, January 18, 1971, Sun Oil)⁹¹

“...Shell considers there is a high risk of the price structure breaking and all condensate settling at the lower price.”

(Document # 136141, January 25, 1971, Shell)⁹²

As a compromise, a price of \$3.00 per barrel was agreed upon — a 5 cents per barrel discount off the price for commingled condensate that had been set in December.

In view of the observations of Imperial and Shell, it may be argued that the price level chosen was too high. It was Imperial’s contention that the condensate was causing a penalty of something in the order of 50 cents per barrel (Document # 111449);⁹³ yet, it agreed upon a reduction of only 15 cents per barrel from the segregated price, 5 cents per barrel below the previous commingled price. Imperial maintained its position on the true economic

1. See section F.3.b.iii

2. Gulf and HBOG controlled 50 per cent (Document # 135997)⁸⁸

penalty of the condensate in its discussions with the rest of the industry, as Shell itself noted:

"Imperial Oil felt that objections from their crude oil customers might be halted if there were a re-evaluation of condensate price to compensate for the product yield from condensate versus crude (in their estimation such an adjustment could be as high as 50¢/bbl)."

(Document # 136136, April 13, 1971, Shell)⁹⁴

A second evaluation of the impact of the price setting agreement was made by the company that was responsible for much of the surplus itself. In commenting upon the ultimate decision to combine condensate with crude at a value of 15 cents per barrel below the segregated condensate price, Shell noted that the price assigned to the condensate was more than it was worth:

"Shell decided to accept this position, as \$3.00 per barrel was much more favourable than any alternative available to Shell, and it was also higher than the probable value of condensate under such circumstances."

(Document # 136141, January 25, 1971, Shell)⁹⁵

Shell expanded upon both points. Before the agreement was reached, in order to dispose of condensate batched separately, Shell was selling condensate at a discount and receiving a reduction of up to 51 cents per barrel at Edmonton (Document # 136139).⁹⁶ If it processed the material itself, Shell estimated the cost at 50 cents per barrel when used in its "Central Complex" (Document # 136139).⁹⁷ By obtaining industry agreement to dump the condensate into the mixed blend stream, the industry was able to reduce the discount incurred from close to 50 cents per barrel to only 15 cents per barrel.

Even though the costs of absorbing the excess condensate were spread across a number of companies, the discount inadequately reflected the penalty each bore. Shell calculated that the cost to the refinery of having the amount of condensate required under the agreement "will vary from approximately 17¢ to 19¢/bbl. during the worst month" (Document # 136142).⁹⁸ Shell was not the only company that indicated the discount left commingled condensate overpriced. A year later, Imperial, in commenting on what had taken place, noted that the discount had been "inadequate":

"In the past, Imperial has found distasteful the need to ask traditional crude purchasers to absorb an undesirable light component in their feed stock at inadequately discounted prices."

(Document # 139802, November 18, 1971, Imperial)⁹⁹

Once the price of blended condensate had been agreed upon, another problem had to be resolved. The crude streams into which the condensate was to be injected had to be chosen. Again intercompany negotiations took place. At first there was considerable disagreement over which streams should be blended with condensate (Documents # 136139-41).¹⁰⁰ As an interim measure Shell

proposed to “key members of the industry” that the surplus condensate should be injected into the Interprovincial sweet and sour mixed blends (Document # 136142).¹⁰¹ In a subsequent meeting of all the shippers on the Trans Mountain, Interprovincial, and Rangeland-Aurora pipeline systems, allocations of the surplus were made among the three pipelines. Interprovincial indicated that it would inject condensate into its mixed blend sweet and sour streams only (Document # 136482),¹⁰² thereby circumventing the problem of allocating the surplus condensate to the various specialty streams run by different companies. Trans Mountain indicated it would blend the condensate with each stream.

The result of this behaviour on Interprovincial’s part needs elaboration. As a result of Imperial’s pricing policy and the discriminatory access to special streams that developed, the mixed blend streams had become overpriced during the nineteen sixties — a process elaborated upon in a subsequent section on the effects of downstream control.¹ The effect is described in the following excerpt from the minutes of a Crude Supply Committee Meeting:

“There is concern that the light ends content of almost all crude streams is increasing to the detriment of refiners receiving those crudes.”

(Document # 137170, March 5, 1970, Gulf)¹⁰³

Thus, to the extent condensate was overpriced and injected into the crude stream, matters were made even worse. That the receipt of these streams was not equal for all eastern refiners means that the agreement would have unevenly affected the competitive position of different companies in the downstream refining and marketing sector. Thus, not only was an agreement reached to prevent the price of condensate from adequately reflecting its market value, but the agreement was implemented in such a way that those companies which had already been placed in a difficult position because of their use of mixed blend were disadvantaged even further.¹

The role of the provincial authorities during this whole process requires some discussion. In this instance, the Alberta Energy Resources Conservation Board intervened to insist that gas production not be cut back. Its representatives chaired many of the shippers’ meetings that attempted to resolve the problem (Document # 136429).¹⁰⁴ Imperial recounted that the Board fully understood the options open to the industry:

“Mr. Millard is well aware of the various options available to balance demand and supply. He referred to the unacceptability of curtailing gas production, the ‘inequity’ of seeking disposition in crude streams and the obvious one of price discounting in order to achieve the necessary market levels.”

(Document # 139802, November 18, 1974, Imperial)¹⁰⁵

1. See Section F on ‘Relative Price Structure and Downstream Competition’.

Nevertheless, in the initial meetings the options reportedly presented by the Board to the industry did not include dropping the price of condensate to clear the market (Document # 136140).¹⁰⁶ The reason for this was probably the worry that this would lead to a general price collapse; for one year later, Mr. Millard of the Alberta Energy Resources Conservation Board is quoted as expressing his worry on this matter to Imperial (Document # 111449).¹⁰⁷ Nevertheless, the Board was concerned about its legal standing and was unwilling to set the price of condensate; when the discussions reached a critical stage on the matter of prices, the Board withdrew from participation. British Petroleum recounted the events:

"The Board concluded that it appeared all companies were agreeable to the condensate being blended into crude and the major issue was one of price in which the Board could not become involved. . . .

"It is necessary that the industry resolve the price aspect themselves."

(Document # 136489, January 19, 1971, B.P.)¹⁰⁸

The Board did, however, exert pressure on the industry to resolve the problem. It was not until Shell turned to the Board, following its rejection by Interprovincial, that injection of condensate into crude oil was considered. When Imperial created the major stumbling block to the industry agreement (Document # 136140),¹⁰⁹ political pressure was brought to bear upon Imperial (Document # 136485).¹¹⁰ At one stage in the negotiations, when an agreement on prices seemed to break down, Shell threatened to "go back to the Board and say the problem was not solved" (Document # 136489).¹¹¹ However, it is a different matter to conclude that the Board legally sanctioned the final agreement. The industry acted without regulatory sanction in such a way as to agree on blended condensate prices and to prevent them from falling to levels that threatened both the condensate and crude price structure.

Throughout these negotiations, Imperial was the main stumbling block to the agreement. It initially agreed to the injection of condensate into crude, but then reneged and caused a second round of negotiations (Document # 136140).¹¹² After the price for commingled condensate had been agreed upon, it opposed taking any in its own special streams. In fact, it was Imperial's dominant position and its opposition to this agreement that made resolution of this case difficult. Although its behaviour, in this instance, appears out of keeping with its interest in maintaining the price structure, it can be explained by changed market circumstances that made this problem no longer as acute as it had been.

Imperial's reason for opposing the injection of condensate into crude was that it had the "effect of reducing Western Canada crude oil production" and that the "U.S. Import Administration has not to this time exempted the condensate content of a commingling stream from import quotas" (Document # 136136).¹¹³ In addition, it probably no longer perceived low condensate prices to

have been a threat to the crude price structure. The crude price increase of late 1970 had been accomplished without major difficulties, and it had become clear that American crude prices were continuing to increase.¹ In eastern Canada, the National Energy Board had implemented import licences, thereby isolating the Ontario market more than ever from the influence of offshore prices. Imperial, in April of 1971, concluded that the foreign crude market had swung from a “buyer’s to seller’s market” (Document # 114737).¹¹⁴ All of this suggests that Imperial’s actions were founded on a changed perception of the environment.

(d) *The Condensate Surplus of the Winter of 1971-72*

In the winter of 1971-72, another surplus of condensate arose. More meetings were held by industry members to resolve the surplus.² The following observation by Interprovincial illustrates that the industry was still preoccupied with preventing the erosion of the condensate price structure:

“A market for condensate apparently does exist but apparently condensate producers are not willing to make the necessary downward price adjustment to make it attractive. . . . Dome is apparently getting by with their condensate production at Sarnia through the ability to sell ‘test batches’ to United, which can be sold at lower than posted prices, thereby not affecting posted prices.”

(Document # 11744-5, December 17, 1971, Interprovincial)¹¹⁷

However, on this occasion, the ‘problem’ was handled by market forces. Shell appealed to other shippers to inject condensate into crude and was turned down. Imperial indicated that it “would not accept condensate in the crude oil streams under any circumstances” (Document # 136476).¹¹⁸ Most of the others, however, were willing to accept condensate; but the Alberta Energy Resources Conservation Board refused to intervene and Imperial’s view prevailed (Document # 138756).¹¹⁹

As a result, Shell discounted the price of condensate by as much as 30 to 50 cents per barrel (Documents # 136475; # 138756; Calgary Hearings, 1975).^{120, 121, 122} Chevron and others offered similar discounts (Document # 136087; Calgary Hearings, 1975).^{123, 124} That the 1971-72 surplus was alleviated by market forces lends support to the assertion that the solution adopted the previous winter, which involved cooperation among the shippers and an agreement on the price, was not required for technical reasons.

1 The course of crude prices at this time is dealt with in Volume II.

2. In November 1971, Dome Petroleum, Great Northern Oil, Shell Canada, Gulf Oil, Imperial Oil, Ashland, Mobil Oil, Union Oil, Husky Oil, Hudson’s Bay Oil and Gas, Sun Oil, Texaco, Murphy Oil and B.P. attended such a meeting (Document # 136476).¹¹⁵ In December 1971, Imperial, Gulf, Shell, HBOG, Amoco, Koch Oil, Ashland, Union Oil, Dome Petroleum, Murphy Oil, Husky Oil, Mobil Oil, Chevron, Sun Oil and B.P. attended these discussions (Document # 136472).¹¹⁶

The reason that a completely different solution was adopted in the winter of 1971-72 can be ascribed to a general recognition that the crude price structure would not be affected by a fall in condensate prices. This was the result of the rapid disappearance of surplus crude capacity in the United States and Canada. The following quotation describes the evaluation of the situation as seen by Shell in the spring of 1973:

"Canadian crude prices were recently increased by 30¢/bbl, 10¢/bbl in November 1972 and 20¢/bbl in January 1973. . . . One of the primary purposes of the increase was to bring Canadian prices closer to American prices. Prior to November 1972, Canadian prices were approximately 40¢/bbl less than U.S. crude at Chicago. This differential had been required previously as a marketing incentive, but it became completely unwarranted as a shortage of crude developed in the U.S."

(Document # 31102, April 13, 1973, Shell)¹²⁵

As a result of this change in market conditions, a deterioration in the condensate market no longer threatened the crude price structure. Of course, there were still numerous companies that worried that discounts in one segment of the condensate market would spread to other sectors of the same market. Sun Oil recounted that the "industry, in total, hopes to hold the current price structure" (Document # 136475).¹²⁶ Imperial noted that the companies that sided with Shell's attempt to 'dump' condensate into crude were worried about the repercussions that discounts would have on the "base market price"¹ (Document # 111448).¹²⁸ But the industry was divided on whether the price structure in the condensate sector would collapse with the outbreak of discounting:

"Many members of industry feel a two-price system can survive under the circumstances, but Shell considers there is a high risk of the price structure breaking and all condensate settling at the lower price."

(Document # 136141, January 25, 1971, Shell)¹²⁹

Imperial's crude production relative to condensate was sufficiently large that it calculated it would be better off if discounting of condensate occurred (Documents # 111451-4).¹³⁰ Therefore Imperial vetoed the commingling solution for the condensate surplus. Although market circumstances had changed, Imperial's acquiescence was still critical for any industry agreement, and its opposition to commingling on this occasion guaranteed that Shell's solution would not be adopted. While this is an instance of the industry not being able to maintain joint agreement on prices, it is not an example of their general inability to do so. Changing market circumstances meant that the

1. Even when discounting eventually occurred, firms took actions to minimize its effect. Husky noted "Other companies including Gulf are making every attempt to cover their own surplus and avoid the lower price system" (Document # 138756).¹²⁷

leading firm withdrew its support for industry action to solve the 'problem'. As such, this incident provides further evidence of Imperial's power.

(e) *Summary*

The importance of these examples is twofold. First, they illustrate how the producing sector protected itself from one of the several sources of competition that threatened it. Of equal importance, they illustrate the nature of the price-setting process that the oil industry employed. They demonstrate how the equalization process was used to prevent price competition and they emphasize the influence the leading firm, Imperial, had over the price-setting process.

The same equalization system, as was described for condensate, was in effect throughout the nineteen sixties for crude oil. Therefore these examples demonstrate how the production sector — with Imperial acting as leader — would have been able to use equalization to control the price of crude generally.

3. *The Coordination of Restrictions on Heavy Crude Production*

(a) *Introduction*

In Saskatchewan, throughout the period under study, the provincial government did not restrict production via prorationing. Saskatchewan crude oil, like condensate, provided another source of potential competition to Alberta crude oil. Dramatic changes in the price of Saskatchewan crude oil or significant increases in production could threaten the price formula used in Alberta. As a result, the industry reached a consensus on the pricing of Saskatchewan crude vis-à-vis Alberta crude and developed a system of production restraints when competition from Saskatchewan fields threatened the overall price structure. This was accomplished by a consultative mechanism that coordinated production levels and allocated production between provinces. As in the case of condensate, this example provides evidence of the industry's ability to coordinate its activities to restrict production or to support prices in areas not covered by the pricing formula, thereby precluding price erosion within the system.

Throughout the nineteen sixties, two opposing forces threatened the Canadian crude price structure that had emerged under Imperial's leadership. On the one hand, American crude prices continued to firm, thereby exerting upward pressure on Canadian crude prices. On the other hand, world prices continued downward, thereby placing the opposite pressure on Canadian crude sales in part of the domestic market — particularly in Ontario.¹ Even though

1. This is developed at greater length in Volume II.

medium and light crudes were prorated in Alberta, the possibility still existed that competition from non-prorated sources would cause the average price level to decline.

The maintenance of price stability was a priority to most major firms. For instance, Mobil, while attempting to gain more control of Fosterton/Dollard crude oil in 1965, considered doing so by way of its processing agreement with Great Northern, thus retaining the existing posted price structure (Document # 18268).¹³¹ Similarly, Imperial, when it recognized that it might have to change the posting for Pembina, noted that it was important to do so in such a way that would "not disturb other pricing relationships in Western Canada" (Document # 91121).¹³² In addition, Dome Petroleum, when faced with the condensate surplus in 1971, managed to sell "test batches ...thereby not affecting posted prices" (Document # 11745).¹³³ In each of these cases, it was recognized that the formula that was used to establish relative crude prices was subject to breakdown if too many exceptions were made in the pricing structure.

Crude oils of different gravities and types were substitutes, albeit not perfect ones, for each other. This point is made in a 1966 Imperial memorandum that discussed the effects that a price increase in South-East Saskatchewan light crude would have on the price of other Canadian crudes:

"Effect On Other Light Crude Prices: With all light crudes on the gravity, sulphur pricing basis, an increase in S.E.S. light raises serious questions on the other light crudes."

(Document # 91095, December 8, 1966, Imperial)¹³⁴

The industry, therefore, found it necessary to reduce any chance that competition at the margin would spread inwards and affect the whole crude price structure.

The problem that condensate — a light hydrocarbon — caused the industry has already been documented. Competition that might have caused the price structure to collapse also came from the production of heavy crude oil. Heavy crudes were produced in both Alberta and Saskatchewan and were not prorated by government authorities. As a result fluctuations in heavy crude prices were more likely to occur from changes in market conditions than was the case for the light crude sector where supply was closely controlled by government prorationing in Alberta. The price of light Alberta crude was held constant from 1962 to 1970. In contrast, the delivered price of non-prorated crudes — Fosterton/Dollard and Midale/Weyburn — fluctuated over this period of time (Table 4).

The fluctuations of heavy crude prices had the potential to influence the prices of lighter crudes because in certain situations one could be substituted for the other. The potential for competition existed not only between light and heavy crudes; it also existed for heavy crudes situated in Alberta as opposed to Saskatchewan. Most of Canada's light crude was produced in Alberta. There-

fore control of Alberta light crude effectively guaranteed industry control over light crude in general. This was not the case with heavy crude. Production of heavy crude was more evenly split between Alberta and Saskatchewan. As a result, supply had to be controlled in both these areas if changes in market conditions were not to be reflected in prices. Using its consultative machinery, the industry, was able to bring about this control, deflect market forces, and as a consequence, constrain competition in this area.

(b) *Saskatchewan Heavy Crude Markets Prior to 1962*

The history of the Fosterton/Dollard area in Saskatchewan indicates that the industry was capable of imposing its own production controls in order to sustain price levels. At the same time, it shows the critical role of pipeline control in implementing and enforcing agreements to restrain production.

TABLE 4
LAI D DOWN PRICES OF FOSTERTON/DOLLARD, MIDALE/WEYBURN
1964-1971

Date	Fosterton		Midale	
	Sarnia	Twin Cities	Sarnia	Twin Cities
	(\$ Cdn.)	(\$ U.S.)	(\$ Cdn.)	(\$ U.S.)
November 30, 1964	2.73 ¹	2.56 ²	2.82 ¹	2.71 ²
January 9, 1966	2.73 ³	2.53 ³	2.83 ³	2.70 ³
March 15, 1966	2.73 ⁴	2.55 ⁴	2.83 ⁴	2.73 ⁴
June 30, 1966	2.76 ⁵	2.53 ⁵	2.82 ⁵	2.70 ⁵
September 30, 1966	2.76 ⁶	2.53 ⁶	2.83 ⁶	2.71 ⁶
March 31, 1967	2.85 ⁷	2.59 ⁷	2.79 ⁷	—
June 22, 1967	—	2.59 ⁸	—	2.70 ⁸
August 25, 1967	2.85 ⁹	2.59 ⁹	2.79 ⁹	—
July 23, 1968	—	—	—	—
August 12, 1968	2.75 ¹⁰	2.50 ¹⁰	2.79 ¹⁰	—
May 31, 1971	2.90 ¹¹	2.86 ¹¹	3.01 ¹¹	3.05 ¹¹

Source: 1. Document #5012, Interprovincial¹³⁵
 2. Document #5014, Interprovincial¹³⁶
 3. Document #5009, Interprovincial¹³⁷
 4. Document #5005, Interprovincial¹³⁸
 5. Document #5001, Interprovincial¹³⁹
 6. Document #4998, Interprovincial¹⁴⁰
 7. Document #4995, Interprovincial¹⁴¹
 8. Document #18228, Mobil¹⁴²
 9. Document #4992, Interprovincial¹⁴³
 10. Document #4988, Interprovincial¹⁴⁴
 11. Document #4984-5, Interprovincial¹⁴⁵

Fosterton/Dollard was unique in several respects. First, the major participants in Fosterton/Dollard were not Imperial, Gulf, Shell, and Texaco; rather control was exercised by two U.S. firms who had built or modified their refineries specifically to use this crude — Great Northern and North Western. Table 5 shows that throughout the nineteen sixties, Great Northern dominated purchases with control of some 70 per cent of total production; North Western was a distant second with only 10 to 15 per cent control. The largest producer was Mobil—26 per cent in 1966 (Document # 91101).¹⁴⁶ By 1971, the three largest producers were Mobil (29.9 per cent), Union (17.6 per cent), and Arco (14.9 per cent) (Document # 137014).¹⁴⁷ Therefore neither the demand nor the supply side of the industry in the Fosterton/Dollard area was dominated by the large integrated majors who were so prominent elsewhere.

In view of the above figures, it is not surprising to find that the disposition of crude from this area was somewhat different from that of other regions. Table 6 shows that the majority of crude from this area was sold in the United States. When crude was first discovered in this area, it was the

TABLE 5

GREAT NORTHERN AND NORTH WESTERN
CONTROL OF FOSTERTON/DOLLARD CRUDE
(%)

<i>Year</i>	<i>Great Northern</i>	<i>North Western</i>
1961 ¹	71.8	15.5
1966 ²	75.0	10.5
1967 ³	67.9	11.9
1971 ⁴	68.0	12.2

Source: 1. Document #13048, Interprovincial¹⁴⁸

2. Document #91101, Imperial¹⁴⁹

3. Document #139181, Imperial¹⁵⁰

4. Document #137014, Gulf¹⁵¹

TABLE 6

MARKETS FOR FOSTERTON/DOLLARD
(MB/D)

<i>Year</i>	<i>U.S.</i>	<i>Canada</i>	<i>Total</i>
1962 ¹	36.0	23.2	59.2
1968 (March) ²	54.3	4.6	58.9

Source: 1. Document #13046, Interprovincial¹⁵²

2. Document #139830, Imperial¹⁵³

Minneapolis market, with refineries specially designed to run this crude, that offered an outlet. Eventually, Canadian refineries also came to use this crude. Even so, it was the United States price of crude that provided the governing influence on the price of Fosterton/Dollard throughout this period.

Until the late nineteen fifties the price of Alberta crude was equated to the U.S. price at the furthest point of penetration for Canadian oil. Early in 1959, the Canadian price was still being set so as to compete with the landed price of Illinois crude in Ontario. On the other hand, the price of Fosterton was set to compete with American crudes in the main U.S. market where Fosterton was sold. As such, the price of Fosterton tended to equate with the price of U.S. crude delivered at St. Paul/Minneapolis. However, given the nature of the U.S. price structure, equating the laid down cost of Fosterton with alternate U.S. crudes at Minneapolis left Fosterton cheaper than Alberta crudes in the Canadian prairie market. To solve this problem, the South Saskatchewan Pipe Line Company discriminated against local users by charging them higher tariff rates. Mobil explained the problem and the solution:

“...Initially (1954), the area had a flat price posting based on reference crudes from Wyoming laid-down at St. Paul, Minn. The flat price had a disadvantage in that Fosterton/Dollard crudes could be delivered in Moose Jaw and Regina at a lower cost than Alberta crudes under the basic pricing structure. Tariff differentiation by S.S.P.L. involving ‘local’ and ‘through’ tariffs sought to prevent this from happening.”

(Document # 18018, December, 1961, Mobil)¹⁵⁴

The existence of this price discrimination was recognized by both through users and local users. Mobil’s perusal of the minutes of the South Saskatchewan Pipe Line Company resulted in the following observation:

“Canadian Husky, for example, has long maintained that the relative price from Fosterton to Moose Jaw (where they have a refinery) is unreasonably high having relation to the through tariff. Woodley has always favoured . . . a high tariff on the local rate.”

(Document # 17036, May 29, 1961, Mobil)¹⁵⁵

In this way, the pipeline system was used to control the degree of inter-field competition. By manipulating tariff rates, the delivered costs of Fosterton crude in Canadian prairie markets could be controlled in such a way as to reduce competition between Saskatchewan and Alberta crudes.

The pipeline that served the Fosterton area served to restrict competition in other ways. The pipeline’s operating rules served to grant a monopsony to Great Northern. Mobil noted that because Great Northern was permitted to own the “line-fill” in the South Saskatchewan Pipe Line Company, Great Northern effectively controlled all purchasing therein:

"At present, the line-fill in S.S.P.L. is owned by Great Northern Oil Purchasing who has been the sole purchaser of Fosterton/Dollard crude since the area was developed and the pipeline built. Their ownership of the line-fill has meant that they had a monopoly on crude purchasing in the area served by S.S.P.L."

(Document # 17018, April 12, 1962, Mobil)¹⁵⁶

This monopsonistic position permitted Great Northern to implement its own private prorationing scheme when prices no longer reflected market conditions and supply outstripped demand. This first occurred in 1959 when downward pressures on all domestic crude prices developed as a result of a decline in world crude prices. There were two markets for Canadian oil: the high-priced American market, which had isolated itself from world trends, and the Canadian market. As the world price of oil began to fall from its peak in 1957, the effects were felt in eastern Canada. Competitive prices for sales to Ontario fell below the level that could be gained on sales to the American market. However, all of the Canadian production could not be sold to United States markets — partly because of the American quota policy, partly, as in the case of Fosterton/Dollard, because its quality limited its market demand. The result of these pressures was a downward movement in Canadian prices. In the Midale field in Saskatchewan, for example, prices fell initially by some 38 cents per barrel. However, in the Fosterton producing area, the monopsonistic position of Great Northern permitted it to implement a prorationing system. Mobil noted the result:

"At present, and this has been the case since July, 1959, Great Northern distributes the available market between fields according to the production percentages that existed in July, 1959."

(Document # 17020, April 12, 1962, Mobil)¹⁵⁷

Great Northern's ability to control production and equate supply to demand while maintaining the price level was made possible by the line-fill policy of the South Saskatchewan Pipe Line Company. Great Northern was the only purchaser and, therefore, the only shipper on that pipeline. The pipeline's regulations provided that, when supply exceeded demand, a prorationing system would be introduced by accepting "receipts from Producers in proportions that are mutually acceptable to all Shippers tendering for Crude Petroleum deliveries" (Document # 17160).¹⁵⁸ Of course, with the line-fill policy making Great Northern the only shipper at this time, Great Northern was able, unilaterally to implement a prorationing system.

While price erosion threatened crude oil in both Alberta and Saskatchewan, the collapse in the price of Fosterton crude threatened to be greater than for Alberta crude because of the Saskatchewan government's non-interventionist position. In Alberta the provincial government sponsored prorationing; however, the Saskatchewan government had already indicated to the industry that it was not anxious to engage in a similar exercise. Therefore, production cut

backs enforced by a government prorationing scheme could not be relied upon in Saskatchewan to prevent crude oil prices from falling. Mobil described the development of a two-price system as price erosion began:

"... there have been a number of recent developments which have tended to complicate the pricing situation for Fosterton/Dollard crudes. The first complication occurred when Western crude prices were reduced with the concurrent reduction of Interprovincial tariffs. Since Fosterton/ Dollard prices are based on U.S. reference crudes rather than at Toronto, the reduction of Interprovincial's portion of of [sic] the joint tariff from Cantaur to St. Paul should have resulted in an increased wellhead price. Had this happened, the Canadian markets in Toronto for this crude type would probably have been lost. Thus, the posting was not changed and the differential between the reference crude and the posted price made it necessary for the purchaser, Great Northern, to make settlement with those producers selling on the Great Northern Crude Purchase agreement. ... At present, the settlement price is no less than 25¢ per barrel above the field posting."

(Document # 18018-9, December, 1961, Mobil)¹⁵⁹

Great Northern's restrictions on production served in the short term to increase realizations from the sale of Fosterton/Dollard above what they would have been otherwise. Table 7 compares Gulf's laid down costs of Interprovincial Mixed Blend to those of South Saskatchewan (Fosterton) at its Moose Jaw and Clarkson refineries. Table 8 translates the absolute price levels in Table 7 to changes from the base period of 1958. The year 1958 was chosen as the base year because crude prices peaked in that year. The appropriate period for comparison is 1958 to 1961. After 1961, the National Oil Policy reduced the impact of foreign competition and thereby permitted the industry to increase the domestic price level. Interprovincial Mixed Blend, the general balance crude, is used as a standard for comparison. Table 7 indicates that prices were reduced

TABLE 7
DELIVERED CRUDE PRICES FOR GULF
REFINERIES IN MOOSE JAW AND CLARKSON
1958-1965
(\$/bbl.)

Year	Interprovincial Blend		South Saskatchewan	
	Moose Jaw	Clarkson	Moose Jaw	Clarkson
1958	2.97	3.38	2.11	2.72
1959	2.87	3.22	2.09	2.66
1960	2.83	3.12	2.08	2.65
1961	2.84	3.11	2.07	2.57
1962	2.97	3.22	2.18	2.66
1963	3.06	3.34	2.30	2.69
1964	3.08	—	2.30	2.78
1965	3.10	—	2.29	2.77

TABLE 8
CHANGES IN DELIVERED CRUDE PRICES
FOR GULF REFINERIES IN MOOSE JAW
AND CLARKSON
 1958-1963
 (¢/bbl.)

<i>Year</i>	<i>Clarkson—Ontario</i>			<i>Moose Jaw—Saskatchewan</i>		
	<i>IPL Blend</i>	<i>South Sask.</i>	<i>Difference</i>	<i>IPL Blend</i>	<i>South Sask.</i>	<i>Difference</i>
1958-60	-26	- 7	-19	-14	- 3	-11
61	-27	-15	-12	-13	- 4	- 9
62	-16	- 6	-10	- 0	+ 7	- 7
63	- 4	- 3	- 1	+ 9	+19	-10

for both crudes up until 1961. However, they decreased more for Interprovincial Mixed Blend than for South Saskatchewan (Fosterton) crude. Great Northern's prorationing system was, therefore, successful in preventing as large a decline in the price of crude as was experienced elsewhere.

The Canadian market for Fosterton/Dollard crude was eventually influenced by offshore price trends to the degree that certain firms recognized the need to make the price of Fosterton more competitive. By 1962, Mobil, which accounted for 20 per cent of Fosterton/Dollard production began actively to seek new markets for this crude¹ (Document # 17018-20A).¹⁶⁰ The potential new markets were in Ontario and the delivered price of Fosterton/Dollard in this area was too high (Document # 17019).¹⁶³

Mobil believed that at least an 8 cent per barrel price reduction was required to penetrate these markets and viewed pipeline tariffs as the vehicle to achieve this purpose (Document # 17020).¹⁶⁴ Interprovincial, also, shared the view that the price of Fosterton was too high in Ontario (Documents # 13037, # 13046).^{165, 166} As a result, a request was made to Interprovincial to reduce its tariff rate on Fosterton crude delivered to Ontario² (Document # 13045).¹⁶⁸

1. Mobil decided to become a purchaser, even though it recognized the deleterious effect this action could have on its processing agreement with Great Northern (Document # 17031).¹⁶¹ Mobil's production position meant that it preferred an increase in production; it recognized that Great Northern was more interested in consolidating its control over Fosterton — a crude for which it had specifically designed and built its refinery (Document # 17018).¹⁶²
2. The IPL tariff rate in question was for movement from Regina to Clarkson (Document # 13038)¹⁶⁷ and therefore, the tariff fell in what might be said to be the intermediate distance range. Evidence adduced later in this volume indicates tariffs were excessively high for these distances.

Problems with this approach arose when the South Saskatchewan Pipe Line argued that any tariff reduction granted by Interprovincial for Saskatchewan crude destined for eastern Canada should be accompanied by a reduction on the rate to St. Paul, Minnesota (Documents # 13038, # 13042).^{169, 170} Interprovincial expressed concern that a reduction in the latter rates would favour Fosterton/Dollard over Midale, Smiley/Coleville, the heavy Sarnia Special Stream, and other special streams, since all these streams, including Fosterton, had similar tariff penalties imposed upon them because of their heavy gravity (Document # 13043).¹⁷¹

By July of 1962, increased demand for Fosterton ended the need for prorationing in this field. Gulf, substantially increased its use of Fosterton both at Moose Jaw and Clarkson (Document # 13045-6).¹⁷² The reason for Gulf's action can be deduced from the movement in the relative price of this crude and Alberta crudes outlined in Tables 7 and 8. Table 8, shows that the relative price disadvantage of Fosterton (using 1958 as the base from which price changes are measured) was eliminated by 1963 in Ontario. With the imposition of the National Oil Policy, the price of Alberta crude moved up more rapidly than that of South Saskatchewan crude. This accords with the earlier observation that Great Northern had been more successful than the industry in isolating the Fosterton/Dollard area from world price trends. With the implementation of the N.O.P. line, the price of other crudes, which had fallen, returned to their 1958 levels.

However, the success of Fosterton must be attributed to more than changes in relative wellhead prices; for if this is all that had happened, the relative price changes (using 1958 as the base) in both Moose Jaw and Clarkson of the two different crude types should have been the same. Table 8 shows that the price decline of Fosterton crude relative to Alberta crude remained approximately the same at Moose Jaw but decreased at Clarkson. Table 8 also shows that, between 1960 and 1963 the price of Fosterton delivered to Ontario declined by some 17 cents per barrel relative to the price of Fosterton delivered to Moose Jaw. Since the quality of blends of crude delivered to the two points remained about the same, this change can be attributed to a decline in freight rates for the long-haul Ontario rate relative to the short-haul rate to Moose Jaw. This suggests that once again price discrimination in transport rates was utilized by the industry to solve the production surplus in this field in such a way that the posted price structure was not affected by the surplus that had developed for this crude.

In the succeeding period (1962-1970), the price of Alberta crude was held constant; this was not the case in the Fosterton/Dollard fields. As American prices moved up, the connection between Fosterton/Dollard and the American market led to some upward movement in the price of this Canadian crude. For instance, in the Fall of 1963, Great Northern increased its postings on all medium gravity crude oil on the South Saskatchewan Pipe Line and

Producers Pipelines systems, including Fosterton, by 12 cents per barrel in response to an increase in the price of Wyoming asphaltic crudes (Document # 16399).¹⁷³ Another increase of 3 cents per barrel was made in the first half of 1966 (Document # 4999).¹⁷⁴ These changes eventually gave rise to a confrontation between Great Northern and the rest of the industry.

(c) *Post 1962 Agreements to Restrict Heavy Crude Production*

The example of Fosterton/Dollard in Saskatchewan illustrates the relationship between production controls and the pricing system. It also shows the role that pipeline control played in the implementation and the maintenance of production restrictions. While the early history indicates the way in which monopsony power was exercised — both at the purchasing and the pipeline level — to restrict competition, the later period illustrates how, in response to entry and to an expansion of surplus crude (production) beyond the Fosterton/Dollard area, the industry was able to adopt a mechanism that served the same objective.

On December 5, 1966, Great Northern increased the price of most Saskatchewan crudes by 10 cents per barrel (Document # 18037).¹⁷⁵ Great Northern disposed of about 50 per cent of its purchases to third parties; therefore, unless other purchasers followed its lead, a general price increase was unlikely to hold (Document # 18038).¹⁷⁶ When Imperial opposed the general price increase for Saskatchewan crudes, it was cancelled. However, the higher crude price that was posted by Great Northern for Fosterton held. As Table 4 shows, the laid down price of Fosterton in eastern Canadian markets increased relative to Midale, another Saskatchewan crude. As a result, an excess supply of Fosterton crude developed.¹ The following quotations describe the result:

“With the exception of Fosterton, Canadian crude oil prices remained stable during the first quarter. The wellhead price of Fosterton was raised 10¢ per barrel; resulting in an 8¢ per barrel increase to U.S. refiners. As a result, April nominations for Fosterton-Dollard crude are 19,200 b/d below a year earlier and fields in the area have been prorated.”

(Document # 4993, March 23, 1967, Interprovincial)¹⁷⁸

“Great Northern price increase of 10¢/bbl. from September, 1966 to November 1, 1967 had great effect on Fosterton production. All Ontario refineries mentioned Fosterton overpriced at Great Northern level. Price came down November 1, 1967 which made it more palatable to others. Therefore, any prorationing starts from that date that [sic] could be attributed to Interprovincial.”

(Document # 13025, March 28, 1968, Interprovincial)¹⁷⁹

1. While Interprovincial had capacity problems during this period, the prorationing of Fosterton that developed, was due to price not pipeline difficulties (Document # 13021).¹⁷⁷

“During the last half of 1967 Fosterton production will be limited to approximately 60,000 b/d for movements East, although the field is capable of producing approximately 73,000 b/d. Price seems to be the deterring factor. . . .”

(Document # 12013, September 27, 1967, Interprovincial)¹⁸⁰

“We mentioned to Mr. Cawley [Deputy Minister of Mineral Resources] that Great Northern’s price increase of 10¢ per barrel from September 1966 to November 1, 1967 had a profound effect on Fosterton production. All Ontario users of Fosterton, particularly Shell and BP had mentioned that they considered Fosterton to be overpriced and as a consequence were using other types of crude.”

(Document # 13021, April 17, 1968, Interprovincial)¹⁸¹

The response of the companies involved was similar to what had occurred in the late nineteen fifties when demand fell off — a prorationing scheme was implemented using the South Saskatchewan Pipe Line as the enforcement agent. But this time, there was more than one purchaser in the field.¹ The result was a joint agreement to limit production. As Ashland noted:

“The Fosterton crude purchasers at a meeting February 27 voted for purchaser proration in this field for March and April.”

(Document # 138111, March 6, 1967, Ashland)¹⁸²

The rules of the pipeline company required that prorationing be agreed to by all the shippers; but given Great Northern’s dominant position — at least 67.8 per cent control in 1967 (Document # 139181)¹⁸³ — Great Northern played the major role (Document # 139768).¹⁸⁴ The other companies entered the agreement when it suited them. For instance, Ashland noted that it was not party to the prorationing in April, 1967, because they were able to sell all their production to Shell (Document # 138108).¹⁸⁵ Similarly, Imperial noted that, in the spring of 1967, when its Regina refinery did not require Fosterton, its production was included in the prorationing scheme (Document # 139761).¹⁸⁶ This arrangement gave producers an incentive to dispose completely of their production at posted prices, but guaranteed each a share of total demand at posted prices if they could not. As such, it would have had the effect of reducing the tendency to cut prices during a period of excess supply. That all firms did not have to agree to prorationing removes any argument that technical requirements forced the agreement.

At first, the purpose of the prorationing scheme was to maintain Great Northern’s posted price increase of late 1966. However, by late 1967, the purpose of the scheme changed from one of sustaining the price increase to one of preventing further declines, for, as of November 1967, Great Northern

1. See Appendix C for a list of shippers on the South Saskatchewan Pipe Line Company. In 1967, Ashland, B.P. Canada, Great Northern Oil, Imperial Oil, North Western Refining and Shell Canada were listed as shippers by South Saskatchewan Pipe Line.

revoked the increases it had posted in 1966. Nevertheless, demand for this crude remained weak. In the summer of 1967, changes in asphalt specifications by purchasers of this product prompted demand to shift from Fosterton to Alberta heavy crudes (Document # 18226).¹⁸⁷ Interprovincial, after the price decrease, noted that the "continuing demand for Fosterton crude east of Superior and to some extent even at St. Paul may be questioned" (Document # 12000).¹⁸⁸ Mobil explained the reasons for Fosterton's problems:

"Recently, however, in 1967 and 1968 the specifications for road asphalt within Canada and the U.S. have been modified to the extent that the composite Fosterton/Dollard stream is of only marginal value. To this extent, British Petroleum (B.P.) and the local market, which consists of Husky and British American (B.A.) and Co-Op Refining have found it increasingly difficult to make specification asphalt from the Fosterton/Dollard crude."

(Document # 20578, October 18, 1968, Mobil)¹⁸⁹

In 1968, Mobil noted the continuing deterioration in Fosterton's desirability as a crude compared to that produced in other areas. This was also attributed to a change in asphalt specifications (Document #20578).¹⁹⁰ Mobil noted that B.P. and Imperial had found Bow River more attractive (Document # 20580).¹⁹¹ Similarly, Great Northern had shifted away from Fosterton to Midale as early as 1967 (Document # 12013).¹⁹² Great Northern, although prorating Fosterton, refused to do so for Bow River crude, thereby increasing the percentage of the latter in its total purchases (Document # 13025).¹⁹³

In the meantime, prorating continued throughout the early part of 1968 (Document # 13023-4).¹⁹⁴ A Mobil study which detailed the economics of prorating, explained why Fosterton continued to be prorated:

"Shutting-in Fosterton crude for two years breaks even with producing it if in the interim the posting is increased 20¢/barrel and the after tax profits are discounted at 6%. (See Table I) Of course should Mobil only have to shut-in a portion of the field to immediately increase the posted price the duration of the breakeven period would be increased, i.e., if shutting-in one barrel permits Mobil to raise the posting on four barrels the penalty associated with shutting-in the crude is reduced."

(Document # 18541, July 10, 1968, Mobil)¹⁹⁵

This privately organized prorating scheme was directed originally only at Fosterton/Dollard. In terms of relative size, this field was not insignificant. A forecast of conventional heavy crude oil production for 1972 estimated that Fosterton would account for about 40 per cent of Saskatchewan heavy crude oil production (Document # 136926).¹⁹⁶ But, as has already been developed, the industry appreciated that a change in one price could have secondary effects on other prices. Mobil, as described above, although desirous of changing Fosterton's price, wanted to do so in such a way as not to "disturb" the existing posted price structure in this region (Document # 18268).¹⁹⁷ These secondary effects eventually spread from Fosterton and led to more extensive consultations on prices and production.

The Fosterton/Dollard problem began to require more extensive industry consultation as purchases were shifted away from Fosterton/Dollard to the Alberta heavy crude areas. Following the 1966 Fosterton price increase, Great Northern shifted some of its purchases to other crudes in Saskatchewan (Document # 12013),¹⁹⁸ and then to Alberta as the following excerpt indicates:

“A meeting was held with other shippers and the Conservation Board regarding possible prorating of Bowbell crude during August. Great Northern stated they would not prorate Bowbell and would take any surplus to Minneapolis, which would back out Fosterton.”

(Document # 139752, October 4, 1967, Imperial)¹⁹⁹

The 1966 price increase caused other companies to redirect their purchases to cheaper Alberta crudes. At this time, both B.P. and Imperial began to use Bow River instead of Fosterton (Document # 20580).²⁰⁰ The industry was faced with the emergence of competition between Saskatchewan and Alberta crudes because of the Fosterton price increase.

By 1968, a more general problem with Fosterton had developed that led to a surplus (Document # 20580-1).²⁰¹ The change in asphalt specifications mentioned above made Bow River crude preferable to Fosterton/Dollard because of the higher quality of Bow River's asphalt yield and a lower yield of its #6 fuel oil (Document # 20580).²⁰² Substitution away from Fosterton crude continued. In 1968, Shell reduced its Fosterton take in favour of Midale/Weyburn (Document # 20580),²⁰³ and Great Northern took Bow River instead of Fosterton (Document # 13025).²⁰⁴ Great Northern continued to substitute Bow River for Fosterton through 1969 (Document # 20574).²⁰⁵

A number of firms reacted unfavourably to Great Northern's substitution of Bow River for Fosterton/Dollard. A report of the October 1967 shippers' meetings contained the statement that Mobil, a large producer in Fosterton, indicated that it was opposed to Fosterton being prorated when Bow River was not:

“Mr. Harrington of Mobil expressed his dissatisfaction with the reduced Fosterton production when heavy crudes in Alberta were not being restricted. He made particular reference to Bow Bell crude where Great Northern has indicated they will take Bow Bell rather than prorate production.”

(Document # 4186, October 23, 1967, Interprovincial)²⁰⁶

The minutes of the same meeting indicate that Imperial requested that Great Northern change its policy:

“During October and November, 1967, Bow Bell crude production has increased 5,000 b/d. As Ontario refineries need light crude none have picked up this increased volume. Great Northern therefore requested this be delivered to their refinery as plus crude rather than prorate production. Mr. Callaway [IOL] requested Mr. Butterfield that he reduce Bow Bell production rather than take this crude as it effectively reduced Ontario by 5,000 b/d. Mr. Butterfield stated he would offer this crude to

Ontario but saw no reason to cut back on production. This ended up in a heated debate with the situation still not resolved.”

(Document # 12008-9, October 23, 1967, Interprovincial)²⁰⁷

This situation continued throughout the latter portion of the nineteen sixties. At various times, different heavy crude oil fields were prorated. Foster-ton, for instance, was prorated sporadically between 1967 and 1970. Husky found that the excess supply of heavy crude required it to prorate Lloydminster crude in 1968 (Document # 139720).²⁰⁸ The challenge confronting the industry was the development of a mechanism that could be used to allocate the burden of the production cutbacks that were required to maintain the price structure. Given the prevailing relative price structure, some firms substituted crude oil from particular areas for that from others:

“During the first quarter of 1969 Northwest Refining and GNO (collectively accounting for 90% of Fosterton/Dollard market) reduced Fosterton/Dollard take by about 10.0 MBD in preference to Alberta crude on the Bow River Pipe Line in which the two companies have extensive contractual and economic commitments.”

(Document # 20574, May 13, 1969, Mobil)²⁰⁹

If price competition that might otherwise have resulted from inter-field competition was to be restricted, the industry needed to coordinate the actions that were being independently taken. Mobil, noted the difficulty of treating each producing region ‘fairly’ so as to resolve the problem:

“Underlining the whole problem of Saskatchewan prorationing is the concern in the industry with regard to the political ramification of attempting to provide for continuing full production in Saskatchewan while Alberta has traditionally experienced substantial prorationing. Stated simply, the shifting of Saskatchewan prorationing to Alberta in an effort to artificially provide for full Saskatchewan production was not considered a desirable course of action, the feeling being that Alberta may actively resist such efforts should they become known.”

(Document # 20575, May 13, 1969, Mobil)²¹⁰

Alberta had prorationed light crude for many years while Saskatchewan had enjoyed the benefits of the higher price this afforded without bearing any of the costs; for generally, Saskatchewan fields were producing at maximum levels. The market prorationing that did occur in Saskatchewan apparently was done without formal governmental sanction. The excerpt quoted above indicated that Alberta was not likely to begin prorating heavy crude so as to help Saskatchewan — no production controls had been exercised over heavy crude in Alberta up to this time — because of Saskatchewan’s past behaviour. Nevertheless, the matter was brought to the attention of the relevant Alberta authorities (Document # 139752).²¹¹ However, resolution by provincial authorities did not prove to be feasible — perhaps because of the ramifications on interprovincial trade that such action implied. The industry then resolved the matter itself. As a solution the parties allocated excess supply — or cutbacks in production — by

producing area. This arrangement was facilitated by the Fraternal Order of Crude Oil Purchasers (FOCOP) which provided a forum for the resolution of the problem. Interprovincial recounted that, in late 1971, agreements were reached to restrict production simultaneously in both Alberta and Saskatchewan:

“Following are some items of interest that came up during the two days of F.O.C.O.P. activities in Calgary December 14th and 15th.

...

“(2) The current heavy crude surplus was the subject of considerable private discussions during these two days. It culminated in a series of meetings December 15th at which it was decided that effective December 16th Fosterton production would be cutback by 15% and Bow River production by 25%.

”

...

(Document # 11742, December 17, 1971, Interprovincial)²¹²

The behaviour of the crude production sector in Saskatchewan illustrates three important points. First, although there were many producers, the paucity of buyers permitted private prorationing schemes to be implemented. Secondly, the overlap in the identity of buyers and sellers in Alberta and Saskatchewan meant that the buyers sought to maintain prices at levels above those which equated supply and demand. Thirdly, although there were numerous fields and thus the identity of the buyer in control of each field was not always the same, there were sufficiently few major buyers to permit them to coordinate output restrictions in fields when the necessity for such action arose. Thus, where there was not a provincially-run prorationing board, certain firms were able to substitute alternate arrangements that restricted competitive price and output adjustments.

To summarize, the condensate examples show that the industry was able to establish the price level of a type of hydrocarbon that suddenly threatened the main crude pricing structure. Behaviour of certain firms in the heavy crude sector indicates that these firms were also able to devise methods to reduce or to restrict crude production and thereby prevent a deterioration in crude prices. Both actions were, of course, complementary in their effect on competition.

The importance of these examples extends beyond the picture they provide of anti-competitive practices. While they demonstrate the ability of the industry to limit competition, they also demonstrate the scope of participation in the mechanism that served to set the price of different crude types. The first section described Imperial's role in establishing the central pricing mechanism. This section shows that other firms were also active participants in the overall arrangement. Firms such as Gulf, Shell, Hudson's Bay, and Great Northern actively participated in arrangements reached in these peripheral areas. Imperi-

al did not dominate here as elsewhere. Therefore these other firms may be viewed as active participants in the arrangements which constrained production and which served to restrict the adjustment of domestic prices.

D. The Rigidity of the Canadian Price Structure

The previous sections have outlined the method used by firms in the production sector to establish the average price of domestic crude oil. The adoption of a particular form of equalization agreement at the trunk pipeline level supplemented by arrangements in other areas combined to limit price competition. This resulted in the establishment of crude oil prices according to a rigid formula that fixed the relative prices of different crude types one to another. That this was not a natural result and, therefore, can be attributed to anti-competitive behaviour may be demonstrated by comparing it to situations where competition was not suppressed, and where multiple prices did develop.

1. A Comparison of Canada and the United States

Unlike Canada, the United States production sector did not feature a high degree of geographic concentration. In addition, pipeline competition, even within specific production areas, has been greater in the U.S. (Document # 18511).²¹³ In view of the differing structure, and, with the absence of an industry agreement in the United States on the absolute price level, the U.S. oil industry's performance differed from that of its Canadian counterpart. For instance, in the United States, it was not uncommon to find more than one price posted in a field. In 1964, Mobil noted that:

"... in Oklahoma dual prices have prevailed for the last two years, whereas Canadian light crudes (over eighty per cent of Canadian production) have never been subject to dual pricing."

(Document # 18511, July, 1964, Mobil)²¹⁴

In 1969, Mobil once again observed that:

"The summary sheet (next page) shows that Mobil is with a majority of companies at one price level except in Southern Louisiana, North Texas and West Texas Sour. The West Texas Sour field has shown a diversity of postings in the past however. Historically, about 1/3 of this field has been posted 5¢/B over the majority. Today, that proportion is at 48%."

(Document # 18319, March 28, 1969, Mobil)²¹⁵

In 1971, Mobil noted that the diversity of postings occurred over a substantial period — four years:

"Amoco Production Company (Standard of Indiana) increased their posting for West Texas Sour crude by 6¢ to \$3.45 per barrel on April 21. This increase affected about 140 TBD. Amoco and Gulf are the only two purchasers at this posting and together they purchase about 30% of this type of crude. Other purchasers, including

Mobil, post \$3.39 per barrel. Since mid 1967 [sic], Gulf has consistently posted 5-6¢/barrel higher than the majority of purchasers for this crude. Amoco set this 'nickel ahead' pattern in mid-1967, but abandoned it in mid-1969. Now they have rejoined Gulf."

(Document # 20292, May 5, 1971, Mobil)²¹⁶

The American crude market also differed from the Canadian in terms of its response to shifts in demand. In Canada, the price of the par crude remained constant between 1962 to the end of 1970. As a result of the Canadian pricing formula, so too did most other Canadian crudes. However, in the U.S., when excess supply developed, discounting of crude prices generally occurred:

"In general, in District V, the competitive position of Canadian crude is a function of the production of U.S. domestic Light Crudes. If Light Crudes are in long supply, then discounting of these crudes occurs and the advantage of Canadian crude is small to negative."

(Document # 90868, Undated, Imperial)²¹⁷

A third major difference between Canada and the United States was the extent to which prices of different crudes moved in concert. During the price changes in 1970, 1972, and 1973 in Canada, the new prices were quickly adopted by everyone. There is no evidence of a substantial or a prolonged disagreement over the appropriate level of prices. This apparently was not the case in the United States. Table 9, prepared by Mobil in early 1969, shows the percentage of production in various American crude fields that was priced the same as Mobil. It is evident that a substantial degree of price disparity existed.

TABLE 9
PERCENTAGE OF FIELD POSTINGS AT MOBIL'S PRICE
APRIL 7, 1969

Field	%
West Texas Intermediate	69
Kansas	89
West Texas Sour	52
West Central Texas	79
Illinois	2
Mirando	63
South Louisiana	2
Wyoming Sour	50
Oklahoma Sour	22
East Texas	68
Seeligson	23

Source: Document #18483, Mobil²¹⁸

In summary, in the more competitive American market, no simple formula served to price crude oil. Prices sometimes differed in the same crude field, discounting occurred, and price changes were not made simultaneously. The difference in the performance of the more competitive U.S. market and the Canadian can be attributed to the pricing mechanism and the consultative process that was used in Canada to price crude oil.

2. *Dual Pricing in Saskatchewan Crude Markets*

The performance of the Saskatchewan crude markets in the early nineteen sixties demonstrates that there was no technical reason why, even in Canada, competition would not have allowed Canadian prices of similar crudes to vary one from another. That performance also provides a test of the importance of government-sanctioned market restrictions and its impact upon crude oil markets. The Saskatchewan provincial government did not intervene in controlling the supply of crude to the same degree as did the Government of Alberta. As shall be demonstrated, the concentration of crude purchasing in Saskatchewan permitted the industry to function like a monopsony with the result that competition was reduced. As such, the performance of Saskatchewan crude markets at this time demonstrates how monopoly power at the purchasing level could have adverse effects on market performance, independent of government prorationing schemes.

The position of the Saskatchewan industry was analagous to that of fringe firms operating under the umbrella of a dominant firm. Alberta, and its prorationing scheme, was instrumental to the industry's ability to maintain high absolute crude prices. Producers in Saskatchewan were free to take advantage of the umbrella so provided, since the provincial government chose not to share the burden of market prorationing with Alberta. Different behaviour and different performance might, therefore, have been expected from the Saskatchewan crude sector.

In one sense, this is borne out. Although the Saskatchewan government did not engage in market prorationing, certain firms did so themselves. As was described in the previous section on heavy crude oil, Great Northern and other purchasers on the South Saskatchewan Pipe Line, privately prorationed supply to maintain high prices whenever an excess of production arose. In this respect, while behaviour was different, the difference did not presage competition.

This section will deal with another phenomenon — the pricing structure that developed in Saskatchewan. It is of interest because events therein illustrate there was no technical necessity for the industry to have established a formula that set a common price for crude oil. In Saskatchewan, the lack of government-sanctioned prorationing temporarily led to multiple prices in the early nineteen sixties. Of equal importance was the fact that with the announce-

ment of the National Oil Policy this competition disappeared. The Saskatchewan industry, dominated by a purchasing oligopsony of the major integrated firms, subsequently used its market position to keep crude prices below their equilibrium value. As such, the performance of the Saskatchewan market provides information that suggests prorationing *per se* was not responsible for poor industry performance. The industry, when left to itself, was quite able to exploit the discretionary power enjoyed by its leading firms.

The price history of the Saskatchewan Weyburn/Midale field indicates that price competition would have been feasible even within the restricted confines of the Canadian industry. Competition in the United States, it has already been noted, was more widespread than in Canada (Document #18511).²¹⁹ One reason advanced for the difference was the concentrated nature of the Canadian pipeline system. In contrast to the Canadian situation, American fields were frequently served by more than one feeder pipeline (Document # 20353).²²⁰ Nevertheless the Canadian industry was not so structured as to prevent price competition from emerging temporarily on certain occasions. In 1959, price competition did emerge in one Canadian field and lasted for more than two years.

In 1959, Canadian Oil Companies Limited, and three other firms requested that the Saskatchewan government implement a prorationing scheme for the Weyburn/Midale area. The proposal called for the prorationing of "all Midale type production and Fosterton type production to the medium crude market" (Document # 13059).²²¹ The Saskatchewan government refused this request. Subsequently, the same downward price pressures as developed in the Fosterton field, occurred in Weyburn/Midale; however, the purchase of Foster-ton production at the pipeline level was largely controlled by Great Northern which implemented its own prorationing scheme. The same degree of control did not exist in Weyburn/Midale. Lacking a prorationing programme, Canadian Oil, through its purchaser Gibson Petroleum, eventually posted a lower price in Weyburn/Midale, thereby creating a dual price system. While Canadian Oil posted \$1.595 per barrel for Midale, Great Northern posted \$1.975 per barrel for the same crude type (Document # 13056).²²²

This development was the result of events in both the world and the United States petroleum markets. The price of Saskatchewan crude reflected conditions in both markets. Refineries in the U.S. upper mid-west had been specially designed for Saskatchewan crude and provided most of the demand for this crude type. However, Saskatchewan production was also marketed in Ontario. Mobil noted, "The price for medium sour Saskatchewan crude is established by the laid-down cost at St. Paul, Minnesota and laid down costs of crude at Sarnia" (Document # 18510).²²³

Until 1958, the crude prices in Ontario and Minnesota were closely related. The price of Canadian crude was generally set by the landed price of

U.S. crude in Canadian markets at the margin of Canadian crude oil penetration. With Ontario as the marginal market for Canadian crude, Canadian crude was priced to be competitive with U.S. mid-west crude delivered thereto. However, in 1958, world crude prices began to fall; in response, the U.S. government erected a mandatory quota system to isolate their crude market from this influence. This reduced the impact on the U.S. market of declining world petroleum prices.

American refiners, like Great Northern, established their prices on the basis of the high priced U.S. crudes that were their only alternative. On the other hand, as the world price of crude and crude products began to decline, the effect was felt in Ontario. Ontario, at the time, was still open to foreign crude. Small refineries in Ontario were not going to purchase Canadian crude unless it was competitively priced. While Imperial and the other majors found it in their own interests to use Canadian crude in Ontario, even with changing relative prices¹, independents like Canadian Oil could not afford to pay higher than world prices for Midale crude.

Canadian Oil was not the only firm to indicate Canadian crudes were overpriced. For instance, Petrofina stated that it would pay no more than \$2.38 per barrel for Weyburn crude delivered in Montreal — a price which translated to \$1.41 per barrel at the wellhead (Document # 13064-5)²²⁴—compared to the \$1.59 per barrel which Canadian Oil was offering. The difference between the two — some 20 cents per barrel — reflected the transportation protection offered Canadian Oil by the site of its Ontario refinery versus the Montreal site of the Petrofina refinery. Therefore Canadian Oil's price reduction indicated that a differential of about 38 cents per barrel had developed by 1959 between the traditional base used to price Canadian crude and the price of foreign crude delivered to eastern Canada.

Initially some firms tried to prevent the price posted by Canadian Oil from taking effect.² Other firms in the industry responded to Canadian Oil's new price by reducing their postings; but they still kept them above that of Canadian Oil. Great Northern reduced its postings to \$1.945 per barrel from

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1. Volume II presents a summary of the National Oil Policy and outlines Imperial's objectives for dividing Canada into two zones — one reserved for domestic crude and the other open to imports.
 2. D.R. Campbell, *The Impact of Seller Concentration on Market Performance: A Comparative Study of the Canadian and American Petroleum Refining and Marketing Industries* (Cornell University: unpublished Ph. D. thesis; 1966) p. 107 reported:

"...Mobil, which was a major producer in the area, moved to support the price (although it had no buyer for the crude) by offering to take 50,000 bbl. at \$1.83 (Oilweek, July 24, 1959, p. 4) It was followed by Imperial (not a major producer in the area) which offered to take 100,000 bbl during September at \$1.83 for testing in its refineries (Oilweek, August 7, 1959, p. 9)."

\$1.975 per barrel and Mobil posted \$1.83 per barrel (Document # 13053),²²⁵ in response to Canadian Oil's price of \$1.59 per barrel. Great Northern noted that because of its high price, it was subjected to "complaints of discrimination from all of our customers on account of lower wellhead prices being paid by others in the Weyburn field" (Document # 13053).²²⁶ Because of this, Great Northern adopted an average of the above-mentioned three prices (Document # 13053)²²⁷ and posted \$1.725 per barrel (Document # 13054)²²⁸, thereby abandoning its "historical policy of posting prices for Midale type crude based upon the laid down cost of medium gravity sour crudes in the Chicago area" (Document # 13053).²²⁹ The result was the price of Weyburn fell "slightly below the Canadian pricing structure" (Document # 17081).²³⁰ Thus competition in this area caused prices to reflect world conditions more fully than the general Canadian price structure.

The episode lends support to the suggestion that it was technically feasible for different companies to post different prices. While the Canadian transportation system may have been more concentrated than the American, the structure did not necessitate one price only. The consensus on prices discussed earlier was not the inevitable outcome of unique technical considerations existing in Canada. That a multiple pricing situation existed for two years in Midale supports this contention. An observation made by Mobil in 1960 is also supportive of this argument. Mobil, in considering a Cities Service offer for Midale crude that would have required a dual pricing system, noted as follows:

"Since Weyburn medium crude is being processed by Canadian Oil Companies at Sarnia on a differential basis with Interprovincial mixed blend stream, we can foresee no complications in this proposal."

(Document # 17081, May 27, 1960, Mobil)²³¹

Multiple postings existed for Weyburn/Midale until the end of 1960. In November of 1960, Gibson was posting \$1.78 per barrel, Mobil and Great Northern \$1.77 per barrel and Shell \$1.80 per barrel; but by December 1960, all companies were posting \$1.78 per barrel (Document # 17120).²³² Over a year later, in March 1962, Interprovincial noted that, with Texaco increasing its postings, this would have the effect, once Canadian Oil followed, of putting all Weyburn/Midale purchases at the same price (Document # 5155).²³³

In the end, not only were price differentials gradually reduced, but the average price was also gradually pushed back into line with other Canadian crudes. Figure 3 shows that as of September 1961, Weyburn was priced slightly above the other crudes. A number of factors contributed to the upward movement of Saskatchewan crude prices. First, as demand expanded in the U.S. mid-west, there was less need to sell Saskatchewan crude to the Ontario market. Secondly, the competitive forces emanating from world markets were deflected from Ontario with the implementation of the National Oil Policy in early 1961.

The Saskatchewan market for Midale crude is not the only instance of a multiple price system developing for crude oil in Canada. For instance, a dual price system prevailed in the Fosterton/Dollard field in the early nineteen sixties when Great Northern paid certain producers more than the posted price (Documents # 13039, # 18268).^{234, 235} Secondly, in the Lloydminster area where Husky controlled most of the crude oil, individual prices were negotiated with different shippers (Document # 138122)²³⁶ and there are indications that a single price did not always prevail (Document # 18761).²³⁷ A similar situation developed for tar sands oil when Sun Oil charged different prices for its crude. Finally, North Western Refining reportedly paid a premium to obtain Manitoba Light Sour in 1968 (Document # 18259).²³⁸ However, these were minor episodes in the pricing history of crude in Canada. In general, most Canadian crude was priced according to the industry formula.

The examples of price diversity outlined above suggest that a rigid formula such as was employed in the industry was unnecessary. In fact, there were minor exceptions to the formula. Wax and H₂S penalties were imposed on certain crudes — Bigoray, Pembina, Sturgeon Lake, Marlboro (Document # 139151).²³⁹ Other crudes — Bellshill Lake, Consort, Halkirk, Hamilton Lake, Kessler, Provost, Schneider Lake, and Thompson Lake — received a 5 cent premium at Hardisty¹ (Document # 139151).²⁴⁰ That such a premium pertained at Hardisty is noteworthy; for it was here that Gibson injected its crude. Gibson was a large broker, essentially buying and collecting crude oil for resale. Its organization, it can be argued, is the ideal vehicle through which differing preferences for crude can be transmitted to the market place. The general absence of this type of organization and the joint setting of prices elsewhere led to a rigid and unrealistic price structure.

E. *The Industry Model: Structural Determinants and Practices Facilitating the Pricing Mechanism*

1. *Introduction*

In comparison to the refining and marketing sectors, concentration was relatively low in the production sector. Table 1 presented industry estimates of the share of Imperial, Gulf, Shell, and Texaco of total net crude and gas liquids production in Canada between 1956 and 1968. The four-firm concentration ratio for this set of firms averaged only some 26 per cent.

Coordinated activity is more difficult in circumstances where production is dispersed among numerous firms. Understanding how the petroleum industry successfully solved the problem of reaching and enforcing a consensus in this situation is, therefore, of considerable interest.

1. Hardisty, Alberta was a major pipeline terminal on the Interprovincial Pipe Line system.

2. *Industry Coordination*

(a) *The Relevant Analytic Model*

The behaviour of firms in the Canadian production sector does not fit neatly into either a dominant firm monopoly or a joint-maximizing oligopoly model. Elements of both are to be found in the method that was used to establish Canadian crude prices. On the one hand, Imperial, being the leading firm, resembled a dominant firm monopolist. It was sufficiently powerful that it could take the lead in deciding what the appropriate price level should be, while, at the same time, calculating what the response of other firms' would be. On the other hand, elements resembling oligopolistic coordination can be found. Imperial did not act unilaterally in all situations. Discussions among major firms were held in order to coordinate activities and to resolve differences of opinion over such matters as the appropriate price level.

The existence of both phenomena has generally been ignored in simple dominant firm models. Yet it is not difficult to see why they might be associated. A dominant firm monopolist is generally assumed to take the supply curve of the remaining firms as given. However, it is in the interests of the dominant firm to be able to control the response of existing firms over time in order to establish and maintain higher than normal prices. The history of the Canadian producing sector shows how the dominant firm, through various accommodations reached a consensus with the other firms so as to restrain competition. Succeeding sections enumerate the reasons that it was able to achieve these accommodations, and, more importantly, the source from which it derived the power to maintain the arrangement. However, before these are presented, the nature of the consultations that established a high degree of interdependence among these firms will be outlined. These discussions demonstrate how firms in the production sector reached a meeting of the minds on various matters.

(b) *Interdependence*

To understand the industry's behaviour and performance it is important to comprehend how certain joint arrangements in the production sector strengthened the recognition of interdependence and trust among member firms. Joint arrangements, which keep firms fully aware of the intentions of one another, reduce the intensity of competition. Actions that in other industries might seem innocent take on added significance in the petroleum industry because of the nature of the interdependencies and the coordination that have developed therein.

The crude oil production section is characterized by considerable inter-company contact. In some cases, contact has been engendered by necessity and was justified, initially at least, by efficiency considerations. For instance,

joint partnership arrangements in drilling can be used as a device to spread risk. Joint operating arrangements at the wellhead naturally develop from these exploration arrangements. In turn, unitization of fields can lead to substantial operating savings, but at the same time require consultation on the operations of the unit. Joint ownership of pipelines may also develop to protect shippers from exploitation by a single pipeline owner. Finally, because of the operating problems of shipping different crudes, shippers' committees are often formed to coordinate the stream movements of separate companies.

All of the joint arrangements outlined above made it easier to coordinate the activities of firms participating in the production sector. The benefits from possible improvements in resource allocation that resulted from these joint arrangements must be weighed against the possible detriment afforded to the competition process by the consolidation of control in the industry and the exercise of market power that accompanied these arrangements. For the exercise of legitimate and reasonable types of consultation can provide a catalyst for the development of unreasonable restrictions on competition. It is, therefore, important to address the issue as to whether the arrangements and discussions found in the production sector of the petroleum industry served to facilitate actions that were inimical to the public interest in competition.

While some references to inter-firm discussions have been made previously, providing a more complete summary of the nature of the discussions is necessary for a full appreciation of the degree of mutual interdependence that developed in this industry. The degree of interdependence helps to explain the reason that certain actions of the industry adversely affected market performance. What is relatively harmless in one industry may serve to permit centralization of decision-making and market exploitation in another. Actions in one sector of a vertically integrated industry such as petroleum, which if examined in isolation might not be interpreted to be harmful, take on added significance when considered in the larger context of the degree of mutual interdependence existing in other sectors.

(c) Coordination Engendered by Contacts at the Pipeline Level

The pipeline sector provided the interface for inter-firm discussions that served to enhance the recognition of mutual interdependence within the industry. Brought together by technical considerations, whose resolution often required joint decision-making, firms in the industry spent considerable time discussing pricing and supply problems. Even where some of the discussions resulted from technical necessities, they are of interest because they illustrate the extent to which inter-firm communications built up an appreciation of a commonality of interests. Of equal interest is the extent to which the industry used the necessity of discussion, in some areas, to extend discussion across a wider range of topics. Some topics, relatively innocuous in and by themselves,

merely served to reinforce the feeling of inter-firm reliance. Other discussions went further and served to coordinate pricing and production decisions.

A fundamental distinction between the Canadian and the American producing industry can be found by contrasting the structures of their respective transportation sectors. The U.S. industry had a modicum of competition between pipelines because there were several producing areas and because more than one pipeline linked the producing and consuming areas (Document # 91572).²⁴¹ In Canada, two pipelines had a virtual monopoly on oil flowing from producing to consuming regions. Trans Mountain carried oil west from Alberta to British Columbia; Interprovincial carried oil east from Alberta, Saskatchewan, and Manitoba to Ontario. In both cases, the technical considerations involved in scheduling crude movements generated considerable interaction among shippers.

This interaction occurred at the frequently held shippers' meetings. One function of these meetings was purely informational. Interprovincial used these meetings to discuss such matters as disruptions in operations due to construction and other problems. Equally important, these meetings were utilized to discuss line-fill — the number of barrels per day that would have to go into the main trunkline systems in order to fulfill refinery demands in the consuming areas. Interprovincial needed this information to schedule its input batches (Calgary Hearings, 1975).²⁴² In and by itself, this requirement might not have necessitated joint discussions. However, given the complexity of handling large numbers of different types of crude streams, the crude that was produced tended to be batched together. Some of these batches were relatively homogeneous and are referred to as special streams. Others contained a larger number of different crude types and were called mixed blend streams. The shippers' meetings were utilized by the industry to provide information to the member firms on the characteristics of the mixed blend streams that would be shipped monthly. Interprovincial described the discussions as follows:

"During this meeting the various shippers present indicated specific crude requirements for each refinery served by the pipeline and, attempting to keep the number of streams to a minimum, various stream compositions were developed by the group and proposed for 1959 operation."

(Document # 11723, October 28, 1958, Interprovincial)²⁴³

In addition to these issues, the shippers' meetings also involved "considerable discussion on changes in composition, price and quality of Mixed Blend" (Document # 11720).²⁴⁴ Industry meetings, therefore, discussed quality and prices of the different streams moving out of the Prairies into Ontario.

These discussions evolved from the problems that accompanied the Alberta government's prorationing scheme. Some studies have drawn the connection between prorationing schemes and the exploitation of market power; however, most fail to recognize that, while prorationing may be a necessary

condition for price fixing, it is not by itself a sufficient condition for this purpose.¹ Provincial regulation did not guarantee or set prices; it rationed crude production to the level that the oil companies desired. This desired level was a function of the prices that these same companies set.² It was, therefore, necessary for the industry to negate and to contain those pressures that might have eroded the price structure. These pressures were most severe in Saskatchewan because it was outside Alberta — the region where government prorationing existed. Nevertheless, the industry also faced certain problems even in Alberta. In Alberta, the industry had to find outlets for crudes that the Alberta prorationing authority had designated for production in a given period, but whose volumes were insufficient to warrant batching in a separate special stream, and for which, a market might not have readily existed at the prices established by the industry. If the industry did not purchase these crudes, some producers would be forced to produce less than their allowable quotas. They could either offer to sell their crude at lower prices — thereby threatening price competition — or they could approach the provincial government to re-evaluate the prorationing system and the distribution of benefits derived therefrom. Neither was particularly desirable from the point of view of the major petroleum firms.

Therefore discussions at shippers' meetings and elsewhere focused on the difficulties and problems created by the necessity of accommodating all the crude being produced — i.e., by setting the appropriate price for this crude. This type of discussion did more than bring the shippers (generally the refiners) together. It also made the producers cognizant of their vulnerability to those who controlled the decisions on the mixed blend streams.

A number of documents suggest that in order to obtain permission from Interprovincial Pipe Line to ship a crude type, the producer had to obtain permission from the shippers in order to inject it into the mixed blend stream. This occurred both on the Interprovincial Pipe Line system and elsewhere. For instance, in May of 1973, the South Saskatchewan Pipe Line Company polled the shippers on the system as to whether they would permit some Montana crude to be shipped via the South Saskatchewan Pipe Line system (Document # 139197).²⁴⁵ Needless to say, in such a situation, a producer came to appreciate

1. For reference to the effect of the prorationing process see J. Blair, *The Control of Oil* (New York: Vintage Books Press, 1978), pp. 159-67; U.S. Senate, Subcommittee on Antitrust and Monopoly, *Government Intervention in the Market Place*, Vol. 1, (Washington: 1969), pp. 80-83; p. 134; T.D. Duchesneau, *Competition in the U.S. Energy Industry*. A report to the Energy Policy Project of the Ford Foundation (Cambridge, Mass: Ballinger, 1975), pp. 122-27; W.F. Lovejoy and P.T. Homan, *Economic Aspects of Oil Conservation Regulation* (Johns Hopkins University Press for Resources for the Future, 1967)

2. The manner in which the price structure was determined was discussed in the first section.

the importance of the goodwill of the shippers. In 1972, there was another situation that illustrated the need for a consensus among shippers before a new crude would be accepted in the mixed blend stream. Shell approached Interprovincial Pipe Line concerning the shipment of some Michigan crude east via Interprovincial. Shell noted that the consent of the shippers of mixed blend would be required and that, in particular, "with a positive reaction from Imperial the rest of the Mixed Blend Sour Shippers could fall in line very quickly" (Document # 11875).²⁴⁶

Another document also suggests that Imperial played a major role in the above-noted decision-making process. In 1974, Imperial informed Ashland that Bow River crude could not be injected into mixed blend. Ashland recognized that this action effectively vetoed their proposal. Ashland, at this time, noted that an official of Imperial "also confirmed that Imperial would turn thumbs down on any proposal to include any part of the Bow River stream in the Mixed Blend. This, coupled with Gulf's refusal, effectively squashes this as a means of moving Bow River crude" (Document # 137930).²⁴⁷

The decision-making process determining how crudes were combined into different streams was based on the consensus of the major shippers and Interprovincial. Interprovincial's role, however, was a minor one. As early as 1959, Interprovincial noted that it had "no control over the composition of the blended streams" (Document # 11720).²⁴⁸ Based on the above, it would appear that Imperial played the key role in the decisions about mixed blends. Imperial, at hearings held before the Restrictive Trade Practices Commission in Calgary, indicated that a consensus of some sort by the shippers generally was required before action was taken.¹ But, those companies who controlled the majority of shipments in the system possessed the majority of the votes since voting was weighted by percentage volume controlled. This meant that Imperial, and to some extent Gulf, controlled the decision-making process, since together they controlled the majority of shipments of crude oil.² A description of the process used to determine which crudes were included in the mixed blend stream was outlined by an official of Interprovincial Pipe Line:

"In discussing certain of the items on the agenda, it became evident that there is no effective democratic method of coming to a decision on a matter affecting all Shippers. Obviously on almost all issues, there will be some Shippers for and some Shippers against and, unless Interprovincial makes the decision after hearing the views of all Shippers, a method of voting must be set up. There are objections to a simple majority vote of all present as this provides small and large refiners with the same strength. A more democratic method would be to poll all Shippers present

1. Testimony of Mr. Callaway, Imperial Oil, Calgary Hearings, 1975, pp. 1938-39.²⁴⁹

2. See the discussion on crude control in section E3.(1) following.

including companies they are agents for and then come to a decision based on percentage volume for and percentage volume against.”

(Document # 11922, February 14, 1972, Interprovincial)²⁵⁰

In light of Ashland’s observation, described earlier, as to the necessity of obtaining Imperial’s and Gulf’s approval for injection of crude into the mixed blend stream, the rule that a majority of shippers weighted by volume must approve changes was apparently followed in practice. A similar rule was followed elsewhere. Evidence indicates that on the Pembina system, decisions were taken on the basis of approval by at least 60 per cent of the shippers — weighted by volumes shipped (Calgary Hearings, 1975, Documents # 136770, # 136424).^{251, 252, 253}

Discussion concerning the mix of blend streams involved questions not only of quantities of different crude types to be injected, but also of prices. Discussions concerning the price of mixed blend, as has been described, permitted general determination of price levels in the industry. There were two problems involving the price of mixed blend that were of particular concern to some shippers. The first was that the quality of the mixed blend tended to fluctuate as different types of crudes were injected into this blend. The second was that the price of crudes entering the mixed blend stream and eventually the price of mixed blend itself did not accurately reflect market values. Documents show that, in 1959, Imperial indicated that it would discuss the way in which the price of the various crudes that were injected into mixed blend was determined (Document # 11720).²⁵⁴ This problem continued to surface throughout the nineteen sixties. In late 1964, Imperial agreed that, in view of the many complaints it had received regarding prices for Alberta crudes, it would commence a lengthy and detailed study of crude prices (Document # 6782).²⁵⁵ Other evidence shows that the method of equalization, and, therefore, the pricing system adopted, was discussed at shippers’ meetings in October of 1968 (Document # 137132-3).²⁵⁶

These discussions revolved around the distortion that existed in the price structure adopted by the industry. The way in which this distortion was used to the detriment of certain companies will be developed at length in a subsequent section. For the purposes of this section, it is sufficient to note that the distorted price structure gave rise to an incentive to remove underpriced crude types from the mixed blend stream and to ship these separately. This led to a rapid expansion in the number of special streams requested. Therefore discussions at shippers’ committees focused on the number and type of special streams that would be made available. As early as 1958, this matter was handled at meetings of the shippers’ committee:

"At the July meeting of the major crude shippers and Interprovincial we reviewed some of the pipeline's methods of operation relating to oil movement and the physical limitations of the Interprovincial system in handling a limited number of crude streams. Prior to that meeting several requests had been received from different shippers to handle additional specialty crudes as separate streams, each of which would have required substantial additional facilities to the pipeline's system in order to meet these requirements."

(Document # 11723, October 28, 1958, Interprovincial)²⁵⁷

As the major companies began to take out special streams from the mixed blend and run them separately, the price of mixed blend gradually increased since the crudes that were removed were the heavier lower priced crude types. The smaller companies, such as Sun Oil, found themselves disadvantaged because, as Interprovincial noted, the new proportions in the mixed blend of lighter crudes raised the price to the disadvantage of these shippers (Document # 5027).²⁵⁸ Interprovincial discussed this matter individually with both Imperial and Gulf (Document # 5129)²⁵⁹ and eventually with the shippers as a whole. It did so because it also noted that handling more streams had become burdensome for it (Document # 12046),²⁶⁰ and that it had certain obligations to provide equal service to all shippers (Document # 5133).²⁶¹ The results of these meetings are summarized by Interprovincial as follows:

"This is a difficult and touchy subject with the shippers and several years ago we held meetings with the shippers at their request to look into particularly the quality of the numerous streams. While this review was for a different purpose, essentially to provide a better quality crude for the small shippers, the ultimate conclusion by the group was that little could be done to combine streams to produce composite ones of the desired quality and value that would satisfy the requirements of the majority of the refiners. *There was considerable bias on the part of the major shippers in the consideration of this matter and little satisfaction to nonproducing shippers.*"

(Document # 12046-7, February 27, 1967, Interprovincial, emphasis added)²⁶²

In conclusion, the shippers' meetings served to emphasize both to producer and refiner alike the necessity of accommodating themselves to majority opinion. It is important to note that the majority opinion was the expressed desire of the two largest firms — Imperial and Gulf. At the same time, the discussions on mixed blend, special streams and the crude price structure indicate the extent to which the decision-making process did not treat all firms equally. The major firms — Imperial, Gulf — were able to control the price structure, and the composition of mixed blend streams. In doing so, they left the smaller refiners such as Sun at a disadvantage. Other larger firms like Shell and Texaco would have been left to rely also on the leaders for access to competitively priced crude. The way in which the two largest firms were able to develop their dominant position is the subject of the next section.

3. *The Dominance of Imperial*

(a) *Introduction*

While the industry, or at least its leading firms, cooperated in the establishment of Canadian crude prices, Imperial played a leading role. An oligopoly needs to solve several key problems if it is effectively to deter competition. First, a particular non-competitive outcome has to be chosen. In the petroleum production sector, this was simplified by the existence of a dominant firm — Imperial — with the power to make decisions for the industry. Secondly, the oligopoly has to be able to enforce the mutually agreed upon solution. This problem too was resolved in the petroleum industry since Imperial, the dominant firm, had the power to discipline firms which refused to abide by the oligopoly's decisions. Imperial's perception of its leadership role, the way in which it achieved its dominant position, and the disciplinary power that it possessed are the subjects of succeeding sections.

(b) *Imperial's Perception of Its Role*

One school of oligopoly theory focuses on the need for the development of mutual trust and understanding among oligopoly members if competition is to be successfully avoided. The decision-making apparatus adopted in the production sector of the Canadian petroleum industry illustrates one way in which such trust can be accomplished. Trust among the member firms evolves with consistency of decision-making, and consistency is more likely to occur when the identity of the decision-maker remains unchanged. Having the same firm to supervise and to implement the solution to mutual problems accomplishes this goal. Of course, the choice of such a firm must still be resolved by the oligopoly. However, when a dominant firm which is willing to engage in umbrella pricing behaviour exists, one of the preconditions for the evolution of mutual trust and understanding is established. The other precondition is that this firm have sufficient punitive power to persuade others that mutual accommodation will be more profitable than independent competitive activity. Imperial's power to accomplish the latter has been alluded to and will be developed further in a subsequent section. Its disposition to play such a role is illustrated by several examples.

For instance, Imperial was willing to consider undertaking investments on its own to forestall a breakdown in the price structure that had been established under its leadership. In August of 1969, Imperial concluded that should the railways use tar sands (GCOS) crude rather than diesel fuel, Texaco might react by cutting the price of diesel fuel. Imperial's recommended course of action indicates the extent to which it was willing to incur a cost to maintain market stability:

"It is recommended that in the event that the railways do convert to GCOS in the future and Texaco lose this business that Imperial consider purchasing from Texaco and upgrading this material to avoid being faced with market disruption, which Texaco would probably cause."

(Document # 91348, August 15, 1969, Imperial)²⁶³

Another example of Imperial's willingness to support the Canadian price structure is provided by its deliberations on the desirability of GCOS crude (Document # 91768-70).²⁶⁴ In 1967, Imperial concluded that it was less valuable than conventional crude to Imperial but "that there may be some merit in acquiring the surplus supplies to protect our market interests" (Document # 91769).²⁶⁵

Substantiating this picture of Imperial's 'industry role' is the position that this firm adopted with regard to government agencies. Regulatory agencies, when they required advice, or governments, when they were setting policy, turned primarily to Imperial or to the industry headed by Imperial. In 1961, the President of Imperial Oil, Mr. W.O. Twaits, wrote: "We have been confidentially requested to help the N.E.B. devise a discriminatory licensing system" (Document # 101185).²⁶⁶ Three years later, Imperial Oil wrote:

"...the NEB have been looking to industry and, we suspect, primarily to Imperial for advice both on general policy aspects and on specific volumetric questions and industry evaluations."

(Document # 96546, November 28, 1964, Imperial)²⁶⁷

In the late nineteen sixties, an Imperial document noted that, in the United States, Exxon coordinated and often wrote government policy and that, in Canada, Imperial was in somewhat the same position in its relations with Ottawa (Document # 92937-9).²⁶⁸ Again, in 1972, Interprovincial noted that Imperial was responsible for coordinating an industry study:

"As discussed at earlier board meetings, the producing industry — with Imperial Oil Limited acting as coordinator — has again undertaken a study of its capabilities..."

(Document # 2306, September 13, 1972, Interprovincial)²⁶⁹

Indicative of the role Imperial played in the industry is the fact that complaints regarding the operations of Interprovincial Pipe Line¹ were directed to Imperial. For instance, in November of 1969, Mobil contacted Imperial to complain that Interprovincial had shut down the Pembina pipeline in late October (Document # 13050).²⁷⁰ In April of 1972, Marathon Oil Company complained to Imperial that Lakehead Pipe Line was not delivering the amount of crude that had been scheduled and that had been expected. Similarly, Sohio

1. Imperial owned over 30 per cent of Interprovincial.

(Standard Oil of Ohio) advised Imperial that they too were suffering shortages. Such actions indicate an industry appreciation of who actually wielded power.

Even in situations where Imperial did not have ownership in a pipeline, the industry members often consulted Imperial or kept it abreast of problems that were developing within the industry. In 1974, Ashland, Chevron Standard, and Pan Canadian pressured Koch, the owner of the Bow River Pipe Line system, for a reduction in pipeline tariffs thereon (Document # 139805).²⁷¹ During the negotiations Ashland kept Imperial informed of the discussions (Document # 139805).²⁷² Ashland's intentions were clear: if it did not get satisfaction, it had the option of requesting hearings before the Alberta Public Utilities Board. Imperial was informed that "Ashland are concerned that if the PUB consents to a hearing, *they will probably look at all other pipelines in the province*" (Document # 139805).²⁷³ The inference can be drawn that Ashland appreciated Imperial's power and expected it to exert some influence on its behalf. Based on the above, these examples suggest that there was a high degree of mutual interdependence in the industry and that member firms accepted the predominance of one firm because of the benefits that this yielded the industry in terms of stability.

This is not to suggest, however, that there was a monolithic decision-making process in which Imperial participated in every problem. While Imperial dominated the industry, it was not directly responsible for all decisions. On occasion, Shell played a similar role in the Trans Mountain Pipe Line system to that of Imperial in the Interprovincial system. Other firms were equally predominant in geographic subareas served by specific pipelines. For example, the solution to a dispute about condensate pricing on the Pembina pipeline, referred to in a previous section, was handled by Gulf — the firm which was in charge of equalization in that pipeline at the time. Other firms supervised equalization in other pipelines or were the only shippers therein. However, most of the pipelines connected with either Interprovincial or Trans Mountain. As noted in Imperial and Mobil documents quoted previously, these two pipelines essentially had a monopoly on crude movement out of Alberta — one east, one west. Therefore control at the highest level could be pervasively transmitted downwards through the pyramid. While Imperial may not have had direct control of all the gathering or branch pipelines, it had control over the major trunk pipeline leading eastward. The other major oil companies predominated in the branches or gathering pipelines. Since they were critically dependent upon Imperial, Imperial could indirectly control all the branches of the pipeline network.

Thus the producing sector can be broken down into essentially two segments: the first consisted of Imperial; the second was made up of the rest of the industry. Problems that might have resulted in an outbreak of competition were discussed among the second set of firms and possible solutions indirectly or directly suggested to Imperial.

While Imperial, therefore, readily accepted a leadership role, the reason for its dominance has not been fully examined. Although it may have been one of the largest producers, it enjoyed a smaller share of this market than would normally be associated with dominance. However, based on observations of the firms in the industry, and their behaviour towards Imperial, it would seem that the key structural characteristic which shaped the performance of the producing sector was not the degree of concentration in the producing sector. Instead, it was the degree of control exercised by a small number of purchasers of crude oil. The concentration of crude control in the hands of a few dominant firms combined with the predominance of the largest firm — Imperial — provided the industry with the power to reach a consensus on crude prices. The concept of control and the means by which it was achieved are dealt with in the next section.

(c) *Crude Control and Discretionary Authority*

(i) *Introduction*

Crude control is analogous though not identical to buyer concentration. As Shell defined it, 'controlled oil':

"... is the oil which a purchaser either produces for its own account, purchases from other producers under lease purchase contracts, or purchases under term contracts from other purchasers or producers."

(Document # 26579, January 25, 1973, Shell)²⁷⁴

This definition does not imply that no matter where a firm is in the purchasing chain, crude control is obtained. The concept refers to market power and, as such, control is directly related to discretionary authority. Imperial emphasized the importance of discretionary authority in the following statement of its own perception of the power yielded to it by crude control:

"Imperial presently purchases approximately forty-five percent of the total crude produced in Western Canada and with the exception of a few areas, such as Fosterton, we control sufficient crude to satisfy our own requirements and have a surplus. Competitor purchasers must then come to Imperial for their requirements and at that time we can determine in some cases the specific use to be made of the crude."

(Document # 139124, February 21, 1964, Imperial)²⁷⁵

As a result of control, the contacts between a large number of producers and the ultimate users were funnelled through a small number of firms. Control conferred a certain amount of discretionary power over the use to which the crude was put. The high degree of concentration of controlled crude oil in the hands of a few major companies served to erect entry barriers to other companies who wished to enter the market for crude.

One form of lease/purchase contract for crude oil that would have given a purchaser control provided for cancellation with only thirty days notice. While the control stemming from such a contract might appear to have been relatively unimportant, firms in the industry did observe that new entrants were excluded from purchasing in certain markets by the degree of crude control existing therein. For instance, Interprovincial noted that a communication from Shell indicated that “they are interested in Fosterton crude but have little control or chance of obtaining a supply” (Document # 12189).²⁷⁶ Similarly, Interprovincial observed that “Shell would like to obtain some Bow River during the winter of 1971-72 but others appear to control the supply” (Document # 12189).²⁷⁷

Other documents also emphasize the long term nature of crude control. In December of 1970, Shell met with representatives of Canadian Pacific Oil and Gas Limited (CPOG) “to discuss the possibility of Shell acquiring Canadian Pacific Investment Limited’s (CPI) 50 per cent ownership interest in Bow River Pipe Lines Ltd.” (Document # 22609).²⁷⁸ The meeting was prompted by CPOG which indicated that its interest in such a sale was the result of an undesirable commitment entered into by CPOG to sell its crude from fields serviced by the pipeline to the other 50 per cent owner in Bow River — Great Northern (Document # 22609).²⁷⁹ Shell examined the purchase with the objective of obtaining a “preferred position for purchasing crude handled by the Bow River system” (Document # 22609)²⁸⁰ but decided against it since “CPOG/CDR crude production from the area of interest is committed to other purchasers for some time to come” (Document # 22610).²⁸¹ Crude control of this type tied the producers to one purchaser, and thus effectively excluded new firms from purchasing crude and conferred monopsony power upon the firms which gained crude control.

Long term control of crude could be obtained in more than one fashion. Long term contracts provided one method. At least one company adopted this strategy. In 1972, with the emergence of OPEC’s power, Mobil adopted a more aggressive attitude towards acquiring crude control (Document # 20842).²⁸² One instrument recommended for this purpose was the implementation of a “life of lease basis” for its crude purchase contracts (Document # 20544).²⁸³ However, long term contracts were not necessary to establish control. Imperial noted that short term contracts usually held for the lifetime of the lease (Document # 136102)²⁸⁴ since producers continued to commit their production to the same purchasers. The barrier to entry this placed upon other purchasers was appreciated by Imperial. In discussing the possible entry of new firms into crude purchasing, Imperial observed that “they [entrants] could also find it difficult to get wellhead contracts as existing purchasers control all production” (Document # 139439).²⁸⁵ Control, therefore, conferred the type of discretionary power that could be used to block entry to an industry.

The discretionary authority conferred by control could be used in two ways. In controlling access to crude supplies, downstream competitors in the refining and marketing sectors could be placed in a dependent position that reduced their opportunity or ability to act independently. Shell, one of the largest eastern marketers, confirmed that it had a "refining cost disadvantage" because of the crude control possessed by others:

"Imperial has traditionally bought more crude oil than it needs over and above its own crude oil production to meet I.O. refinery demand and crude sales commitments. Thus, Imperial has great flexibility in setting the best crude diet from a refinery yield point of view. Shell, as a large net crude oil purchaser operating without the inherent purchasing advantages enjoyed by Imperial as a major pipeline operator, has to accept less desirable refinery feed-stock crudes from this company, which results in a refining cost disadvantage."

(Document # 21512-3, July, 1971, Shell)²⁸⁶

This effect of crude control will be developed at greater length in a succeeding section.

Control had equally deleterious effects on competition in the producing sector. Imperial recognized that crude control could confer the ability to limit price competition in the producing sector. In an analysis of the effects that an offshore or Arctic discovery would have on the Canadian industry, Imperial noted the influence that such discoveries would have on the general price level of western Canadian crude and, the likelihood that government intervention would be required to prevent the price of crude from falling. The following excerpt notes that concentration of crude ownership in the hands of the majors would alleviate the need for reliance on governmental intervention:

"Although a proprietary interest in discovered reserves and in refining capacity in the prime market area, the U.S. Midwest, will be a factor, an orderly market arrangement with attendant price stability, if not price maintenance, will be a key consideration. If the producing companies are largely the majors, and if the control of the reserves remain in relatively few hands with the Federal Government as the only lessor, the objective of price stability at a reasonably high level would be more readily attainable and, as a consequence, the pressure for a greater share of the market will be reduced."

(Document # 109479, November, 1968, Imperial)²⁸⁷

This analysis also emphasized that government restrictions on output would not be needed if concentration of ownership was in the hands of a few major companies:

"The pressures which encourage governments to become heavily involved in inter-region proration will tend to be minimized if, as we now envisage the circumstances, the new supplies are concentrated in the hands of a relatively few, principally major, producing companies."

(Document # 109480, November, 1968, Imperial)²⁸⁸

What is equally significant is that it was recognized that the concentration of ownership and control were substitutes. One of the factors that would affect price stability was noted to be:

“Volumes controlled by 1 company of the total will be important.”

(Document # 109479, November, 1968, Imperial)²⁸⁹

Therefore crude control was also regarded as an instrument for the maintenance of stable prices at a “high level” in the production sector.

(ii) *The Acquisition of Crude Control*

Throughout this period the major firms actively sought to maintain their share of controlled crude. For instance, as exploration moved north in the province of Alberta, and the Mitsue-Nipisi-Rainbow pipeline system was extended into the area, Imperial recounted that it aggressively sought to purchase most of the crude in the new fields:

“We have continued our efforts to obtain a major purchase position in the Rainbow and North Zama areas.”

(Document # 139768, April 11, 1967, Imperial)²⁹⁰

A variety of factors contributed to the successful establishment of crude control. The first factor was the size of a company's own crude production. It is not a coincidence that Imperial, the firm which acquired the largest share of controlled crude, also had the most crude production. However, its share of controlled crude was at least twice its share of production during most of the nineteen sixties. Therefore other producers must have relinquished control to firms like Imperial. In these instances, crude production, in and by itself, was not a sufficient condition for the acquisition of control. Sun Oil provides an example of a company with production and little control. Sun noted that, generally, it relinquished control over its production to Imperial and, in return, received blended streams for its Sarnia refinery (Document # 126507).²⁹¹ The penalties that this imposed upon Sun Oil are dealt with in a later section.

Crude control was also engendered by the operation of the pipeline system that served the producing fields. The operation of a pipeline system conferred a number of competitive advantages that abetted the establishment of crude control. Some of these did not relate directly to the development of discretionary power. For instance, Texex contemplated the development of crude control by attempting:

“... to buy their [producers'] crude oil on a long term (five years) contract subject to Texex building a line at a lower tariff [therefore permitting a higher wellhead price] to producers.”

(Document # 136013, June 22, 1963, Texex)²⁹²

Ownership of a pipeline was also a method of collecting information on drilling activities of other companies. As Shell noted:

“... front line exposure to information about crude oil availability places the pipe line operator in a favoured position to deal on the purchase of oil . . .”

(Document # 21512, July, 1971, Shell)²⁹³

Nevertheless, certain industry members perceived the possibility that the discretionary power conferred by ownership or operation of a pipeline could be used to obtain crude control. Delay in servicing a well, threats not to accept oil, and arbitrary cutbacks could be used to persuade independent producers to sell their crude to a pipeline operator. Shell explained the importance of controlling a pipeline by noting that “producers along a [pipeline] system tend to sell to the owners of such system hoping for preferential handling, etc.” (Document # 136103).²⁹⁴

Apart from the implicit or explicit threats of discriminatory treatment of producers, operation of a pipeline sometimes served to consolidate control by creating a significant entry barrier to other purchasers. If other buyers could be excluded by the operating rules adopted by the pipeline, then crude control fell by default to the pipeline operator. One method by which this was accomplished was to assign ownership of pipeline fill to one company. Mobil recounted how this was used by one company in the early nineteen sixties to develop a monopoly over purchasing in one area:

“At present, the line-fill in S.S.P.L. is owned by Great Northern Oil Purchasing who has been the sole purchaser of Fosterton/Dollard crude since the area was developed and the pipeline built. *Their ownership of the line-fill has meant that they had a monopoly on crude. . .*”

(Document # 17018, April 12, 1962, Mobil, emphasis added)²⁹⁵

Even where ownership of pipeline fill was not delegated to one company, a similar barrier to new entrants could develop if one company was the sole shipper. A firm that owned a significant portion of production in the area served by the pipeline would have had the largest shipments, and, given the nature of the operations of the pipeline system, it would have had an advantage in acquiring control of the crude produced by others. In this way, two factors that each engendered crude control — ownership of production and the mechanics of pipeline operations — interacted so as to reinforce the effect of one another.

Several pipeline systems only had one shipper. Imperial noted that, as of 1966, it continued to be the only shipper in the Mitsue-Nipisi-Rainbow system (Document # 139792).²⁹⁶ Documents from Imperial (Documents # 93096-103)²⁹⁷ and Texaco (Documents # 8410-11)²⁹⁸ indicate that for the Federated and Texaco Exploration pipelines, crude was shipped under an arrangement whereby the ownership of crude oil was transferred at the injection point to the

pipeline owner and then transferred back to the crude purchaser at Edmonton. This served not only to avoid common carrier status¹ (Documents # 8410-11)²⁹⁹ and the resulting possibility of regulation but it also created a barrier to entry for new purchasers in the fashion described above. While some companies did enter as new purchasers — for instance Gulf, in the Texaco Federated system — their ability to do so may have been the result of their exercising similar power elsewhere. For instance, Gulf operated a number of pipelines and would have been able to offer Texaco a *quid pro quo* elsewhere. In these situations, the interdependency among the major firms that controlled pipelines would have been strengthened and the tendency to arrive at mutually accommodating solutions on a wide range of issues — both those relating to pipelines as well as other matters — would have been enhanced.

Ownership of pipeline related facilities — such as crude batteries and natural gas processing plants — also engendered crude control. Fieldgate batteries essentially centralized production in a unit operation and thereby reduced production costs while enhancing the total amount of oil recoverable. As crucial as they were to efficiency in extraction methods, they also had the effect of strengthening the ability of the company that operated the facilities to gain crude control. Shell noted this possibility in the following quotation:

“If unitization of either the Midale or Weyburn fields (or both) develops before the first quarter of 1963, it may prove easier to secure a controlled supply of crude if Shell is the operator of either unit. In any case, we should use our producing position in the units to the best advantage in this respect.”

(Document # 28657, May 2, 1962, Shell)³⁰⁰

Natural gas processing plants served a similar function. These plants are used to remove solution gas from crude oil. Gulf, in the following excerpt, indicated the dependence of producers of crude upon the gas processing facility:

“Because of the more stringent conservation regulations in effect in Alberta which eliminated flaring of solution gas a number of years ago, the volume of crude oil production in that province now is largely dependent upon the availability of gas processing or other conservation projects such as gas cycling.”

(Document # 67123, March 15, 1972, Gulf)³⁰¹

Ownership or control of these plants by a crude purchaser provided one more method of making the producers dependent upon the purchaser's good-will. That control of pipelines or related facilities conferred discretionary power is evidenced by Texex's statement that should Imperial gain control of pipeline

1. Common carrier status exists when a pipeline or other transport system provides a service for the public at large rather than just the owner. Common carrier status was avoided by the arrangement in this case since the pipeline was left in the position of carrying only crude which was owned, at the time of transport, by the pipeline owner.

outlets in Mitsue-Nipisi, then "future gas sales from this area at competitive prices will probably not materialize" (Document # 54989).³⁰²

Most of the means of control discussed to this point relate to the operation of various types of industry facilities. These were not the only means by which control could be acquired. Joint exploration or production agreements can be formulated so as to enable one company to control the production of another. The economic rationale for joint exploration is well established. This type of arrangement may be used to distribute risk efficiently. However, the conditions of joint exploration may include adjunct clauses that do not contribute to risk spreading but do enhance the crude control exercised by one of the parties. A company may advance funds to another in return for control of its existing production, or it may include a clause that would give it control over new discoveries. In this way, the lending company can extend its control into areas of existing production or into new developments.

Besides exploration and production agreements, crude sale or processing agreements at both the domestic and the international level can be used to acquire control over crude oil. Mobil and Imperial were involved in a Canadian-Venezuelan crude swap that gave Imperial control over much of Mobil's Canadian production.¹ Similarly, as part of an exchange agreement between Mobil and Continental in the United States, Hudson's Bay Oil and Gas — Continental's Canadian subsidiary — acquired an option to purchase Mobil's share of Wimborne condensate (Document # 18262).³⁰³ Furthermore, Texaco Exploration advocated that its parent company attempt to gain control of Canadian crude in its dealings elsewhere in the world:

"A concerted effort should be made by Texaco Inc. to obtain control of other producers' Canadian production by virtue of their worldwide position in crude trading. Every future negotiation with companies owning Canadian production, whether it be an exploration deal, a production or refining arrangement, or a crude sale, should be closely examined for the possibility of obtaining that company's Canadian crude production as part of the negotiations."

(Document # 136002, February 18, 1972, Texex)³⁰⁴

Finally, it should be pointed out that companies took advantage of the imperfections in the market system engendered by control to consolidate their purchasing position. The concentration of control in the hands of two major companies — Imperial and Gulf — resulted in an administered price system unresponsive to changing relative supplies and demands for different crudes. The purchasing companies exploited the imperfection by favouring the producers of 'desirable' crude during downswings in the economy, thereby either establishing or strengthening their control in these fields.

1. This arrangement was discussed at greater length in the Volume III, *International Linkages: Canada and the World Petroleum Market*.

One example of this is provided by the behaviour of Shell as observed by Mobil:

“Shell, by virtue of its dominant producing and purchasing position in the Midale/Weyburn area was compelled, during the early 1968 heavy crude surplus, to provide for continued movement of maximum volumes of Midale/Weyburn. To this extent Midale/Weyburn was substituted for Fosterton/Dollard inasmuch as Shell views Fosterton/Dollard and Midale/Weyburn with the same degree of desirability; therefore, the Midale/Weyburn displaced Fosterton/Dollard in their Sarnia Plant.”

(Document # 20580, October 18, 1968, Mobil)³⁰⁵

Behaviour similar to Shell's was exhibited by Northwestern and Great Northern as recorded in another Mobil document:

“During the first quarter 1969 Northwest Refining and GNO (collectively accounting for 90% of Fosterton/Dollard market) reduced Fosterton/Dollard take by about 10.0 MBD in preference to Alberta crude on the Bow River Pipe Line in which the two companies have extensive contractual and economic commitments. Until such time as the Bow River stream is disposed of by these companies, preferential treatment will be given to the Bow River crude.”

(Document # 20574, May 13, 1969, Mobil)³⁰⁶

Each of the above examples describes the way in which a higher net price, over a business cycle, was being offered. Of course, it is significant that both pertain to non-prorated crude. Where the Alberta prorationing system prevailed, this device could not have been used as easily; all producers of light and medium crude theoretically were treated equally during the business cycle. But even in Alberta, the possibility for a higher price existed if a tied sale could be arranged. In 1972, a surplus of condensate developed and Texex received a number of phone calls from independents offering it crude if it would take condensate as well. Texex noted:

“We determined that these companies would be willing to sign crude oil contracts with us if we were able to take their gas plant condensates off their hands.”

(Document # 136002, February 18, 1972, Texex)³⁰⁷

All of these examples are of interest because they indicate that, in view of the price rigidities that developed in Canada, control could be extended or consolidated by offering financial inducements to producers. These financial inducements were not in the form of the direct offer of a higher price. This is all that would have been required if competition had not been restricted by the extent of control. What is equally important is that those companies which already possessed crude control had more opportunities to overcome the market imperfections occasioned by the rigid price structure.

The ability to make arrangements that involved side payments, thereby bypassing the posted price structure, depended upon the extent to which a company already controlled production that could be swapped with that of

others. For instance, Imperial documents provide the following example of the type of crude swap used to consolidate its control:

"Arrangements were made with Husky Oil to give them approximately 1 MB/D condensate for mixing with Lloydminster crude. This was done to protect Sturgeon Lake crude contracts. We also agreed to take Lloyd Blend in the ratio of 1.5:1.0 for Cold Lake delivered to Husky."

(Document # 139694, April 16, 1969, Imperial)³⁰⁸

These arrangements were not unique. In a letter to Northwestern, Imperial outlined another such arrangement:

"The original agreement dated January 19, 1970, has been modified so that in November and December Imperial will receive 5.0-5.3 MB/D of Bow River crude in return for our Fosterton control."

(Document # 137944, August 21, 1970, Ashland)³⁰⁹

Similarly, Hudson's Bay Oil and Gas (HBOG) entered into an arrangement with Northwestern, beginning in October 1970, whereby HBOG provided Northwestern with Fosterton/Dollard in exchange for "an equivalent number of barrels of Light Sour Blend crude oil" (Document # 137958).³¹⁰ Since Light Sour Blend historically had been more expensive than Fosterton/Dollard this arrangement involved an implicit price increase for Fosterton/Dollard crude.

These arrangements were generally available only to those firms which already controlled crude. To the extent that a company could have established a limited control position and then used it to barter its way to a larger position, the imperfections caused by the distorted price system would have been reduced. But since imperfections such as monopoly position in the pipeline systems favoured the crude control position of particular companies, then the swap arrangements discussed above further consolidated the control position of this select group of companies.

(iii) *Crude Control and Oligopolistic Interdependence*

Neither the ultimate objectives of crude control nor the means by which control was exercised are as important as the restraining effect that the distribution of control had upon the competitiveness of the crude production sector. The control of Canadian crude oil throughout the nineteen sixties was concentrated in the hands of three major companies — Imperial, Gulf, and Texaco.¹ Imperial had the largest percentage of control. Table 10 is Imperial's own estimate of the percentage of total western Canadian production that it controlled. After a fall from levels of 50 per cent in 1962 to 43 per cent in 1964,

1. Full appreciation of the role of the Texaco organization requires the summation of the amounts of crude controlled by both Texaco Canada Ltd. and Texaco Exploration Ltd., the U.S. parent's exploration subsidiary.

its share of controlled crude was fairly constant until 1970. At this time, growing supply shortages and the threat of export quotas based on historical purchases led firms to enter the market (Document # 139672).³¹¹ After Imperial, Gulf controlled some 22 per cent of total production as of 1973 (Document # 136936).³¹² The two Texaco entities — Texaco Canada and Texaco Exploration — controlled about 13 per cent of total production in the same year (Document # 53515).³¹³

TABLE 10

CONTROL OF CONVENTIONAL CRUDE & EQUIVALENT PRODUCTION
BY IMPERIAL OIL¹

	<i>Ind. Prod.</i>	<i>Direct Purchases¹</i>						<i>Second² Purchases</i>		<i>Total Purchases</i>		
		<i>IOL</i>			<i>Other</i>		<i>Total</i>					
	<i>MB/D</i>	<i>MB/D</i>	<i>%</i>	<i>MB/D</i>	<i>%</i>	<i>MB/D</i>	<i>%</i>	<i>MB/D</i>	<i>%</i>	<i>MB/D</i>	<i>%</i>	
1960	532	86	16	171	32	257	48	6	1	263	49	
1962	715	123	18	225	31	348	49	12	1	360	50	
1963	766	125	16	228	30	353	46	13	2	366	48	
1964	819	123	15	219	27	342	42	14	2	356	43	
1965	876	127	15	220	25	347	40	18	2	365	42	
1966	955	139	14	237	25	376	39	24	3	400	42	
1967	1043	156	15	252	24	408	39	23	2	431	41	
1968	1101	163	15	266	24	429	39	24	2	453	41	
1969	1193	168	14	287	24	455	38	28	2	483	40	
1970	1341	184	14	346	26	530	40	30	2	560	42	
1971	1428	195	13	324	23	519	36	25	2	544	38	
1972	1698	234	14	300	17	534	31	26	2	560	33	

Notes: 1. Own production or production bought under lease purchase contracts.

2. Purchases under term contracts from other purchasers or producers. Excluded from 1 are C3, C4, GCOS, NWT and Ontario.

Source: Document #139675, Imperial³¹⁴

The distribution of control created a hierarchial industry structure with Imperial at the head. On the second level were the other majors which possessed a limited degree of control. However, in one way or another each of these was dependent upon Imperial. On the third level was a much larger group of companies. This group had no market power and no possibility of challenging Imperial's leadership role. The dominant position enjoyed by Imperial as a result of the magnitude of its crude control made it the industry leader in the price setting process. Mobil, in a 1964 study of Canadian crude prices, outlined Imperial's predominant position in the purchasing of crude and noted that

Imperial was "invariably the first to announce crude price changes" (Document # 18515).³¹⁵ Imperial itself recognized its leadership role:

"Because of . . . our contacts in the Industry with other purchasers, shippers, producers and pipeline companies, we command a greater degree of influence than any other single company."

(Document # 139455, January 24, 1972, Imperial)³¹⁶

This influence extended into a number of areas— including the pricing system. For instance, in a 1969 Imperial study of the desirability of raising Canadian crude prices, under the heading of "status quo" is the notation "IOL is [the price] leader" (Document # 113686).³¹⁷

While Gulf's share of control was large, it could not successfully challenge Imperial's pricing policy. Mobil observed that Gulf "was the only major challenger to a general price increase posted by Imperial in May, 1962" (Document # 18515-6).³¹⁸ That Imperial's 1962 price increase was not rolled back is evidence of even Gulf's impotence in this area. In 1972, although it disagreed with Imperial's price change, Gulf decided not to oppose the industry leader.

The industry's perception of Imperial's role confirms Mobil's observations. Both large and small firms alike appreciated the extent of Imperial's control and the power associated with it. This resulted in the adoption of a subservient role that tended to circumscribe the type of independent action that is essential to the operation of competitive markets.

This structure was defined and strengthened by decisions made by the multinational parent organization. The international volume discussed the reason that the adoption of analogous transfer pricing policies by the multinational petroleum firms provided an efficacious method of coordinating the behaviour of their subsidiaries in geographical areas such as eastern Canada where imported crude served domestic refineries. This tool was not available to these firms in the domestic orbit served by Canadian crude. In this arena, the pattern that emerges is one of head office decisions that consistently placed their Canadian subsidiary in a dependent position vis-à-vis the dominant firm — Exxon's subsidiary, Imperial Oil Ltd. Such a policy would, of course, have placed other firms at the mercy of Exxon; therefore, it is not obvious why it would have been chosen. The answer lies in the nature and the degree of the interdependence that had developed between the multinational firms as a result of their contacts around the world. Joint ventures in production and refinery exchanges brought most of these companies together at different geographical locations and they could be reasonably certain that the decisions taken in Canada would be in the interests of the group as a whole and not just benefit Exxon.

Two interpretations of events are available to explain why the industry chose Imperial as the leader in Canada. The leadership role of Imperial could be interpreted to have been the result of a deliberate, conscious decision by firms in the petroleum industry to tie their Canadian subsidiaries to a dominant firm which could be relied upon to choose unilaterally the policy that jointly maximized profits. In this fashion, monopolistic performance could be achieved without the multinationals' Canadian subsidiaries having to agree explicitly on the best course of action. An alternate interpretation of events is that mutual interdependence at the international level required decisions that would not have repercussions elsewhere. Recognizing Imperial's pre-dominant position in Canada, the other multinationals, by constraining their subsidiaries to follow Imperial, would only have been following a course of action that did not threaten to disrupt already established positions. No matter which interpretation is adopted, the result of the industry's behaviour was that Imperial's role as the dominant firm was strengthened by the mutual interdependence that existed at the international level. Even though Imperial's market share was less than 50 per cent — in marketing, refining, or production — its behaviour governed the performance of the industry. Nowhere is this more evident than in the domestic production sector.

Mobil's Canadian subsidiary provides an example of the way an important producer was, by the actions of its parent, removed as an independent competitive force in Canada. A complicated exchange of crude oil left Mobil dependent upon Imperial in Canada. Under this arrangement, Mobil gave up control of much of its Canadian production to Imperial in return for Imperial's agreeing to buy Venezuelan crude from a Mobil subsidiary and to deliver Canadian crude to Mobil's Washington refinery. The arrangement was extremely beneficial to Imperial. Imperial estimated that its control over Mobil's crude production was worth 16-25 cents per barrel in terms of replacement cost (Document # 124308),³¹⁹ but the benefits of this arrangement to Imperial extended beyond the substantial profits it earned from the control of Mobil's attractive Canadian crudes. With this arrangement, Mobil, one of the largest producers in Canada, was left in a position where it had no influence on the Canadian price of crude. A Mobil document noted:

"It is ironical that in the rare instance such as Canada where Mobil is such a clear leader in self-sufficiency, we are so tied that we can exercise little or no price leadership."

(Document # 20886, April 28, 1969, Mobil)³²⁰

This result was not achieved inadvertently. Canadian representatives of Mobil fully understood the effect of this dependency. The following excerpts reflects their understanding of Imperial's objectives in gaining crude control:

"Based on our knowledge of Imperial's major marketing position in Alberta, and Imperial's well known record of attempts to control Alberta production in its own

favour, it is mandatory that we do everything possible to maintain Banff-Aquitaine control on Rainbow production."

(Document # 19964, August, 1965, Mobil)³²¹

In light of this clearly stated perception of Imperial's objectives, the parental decision that tied Mobil's Canadian subsidiary to Imperial takes on special significance.

Texaco Exploration — the exploration subsidiary directly owned by the U.S. parent — provides another illustration of a company which, because of parental instructions, was placed in a position that contributed to the extent of Imperial's control. This example is interesting not only because it outlines the protestations of the Canadian subsidiary to its parent about its position, but also because it outlines the nature of the *quid pro quo* involved in the parental decision-making process.

Texex, in the mid-nineteen sixties, had to decide whether to ship crude via the Peace River or the Mitsue pipeline systems. Price competition had developed between the Peace and the Nipisi-Mitsue-Rainbow systems. The former was owned by a large number of companies — Amerada, British American (Gulf), Hudson's Bay, Husky, Texaco, Union, Western Leaseholds (Fina), and others as of 1961 (Document # 17101).³²² The latter was one-third owned by Imperial. Mobil, a major owner in the Rainbow line, referred to the Nipisi-Mitsue-Redwater system as operated by Imperial (Document # 19963)³²³ and as an "Imperial controlled system" (Document # 19963).³²⁴ When Rainbow was built, Imperial obtained one-third ownership in this system and later extended its control over the whole system. It is not coincidental that with control of the pipeline went control of the crude shipped thereon. The following two quotations from Imperial illustrate its success in this matter:

"We have been able to purchase essentially all the Mitsue, Nipisi, and Rainbow production. The only exception is B.A.'s own Mitsue crude and 50 per cent of one Rainbow well produced by Pan American, which is purchased by B.A. B.A. resell to us and we remain the only shipper in the systems."

(Document # 139792, July 13, 1966, Imperial)³²⁵

"We have continued our efforts to obtain a major purchase position in the Rainbow and North Zama areas. We still control most of the Rainbow crude and more than 50 per cent of the North Zama."

(Document # 139753, October 4, 1967, Imperial)³²⁶

The Peace River Pipe Line and the Imperial controlled system competed in an area northwest of Edmonton. The elimination of the Peace River Pipe Line from the area would have left an Imperial controlled system with no competition. As a result, when Texex was approached to shift crude from Peace to Nipisi in 1965, it resisted, knowing that such a move would only serve to

consolidate Imperial's control in the area. The following two excerpts from a communication to its parent corporation outline the concern of Texaco Exploration:

"We therefore believe that by dedicating our crude to the Nipisi line, we will assist in the continuation of the 'tariff war' and could possibly force Peace River to cease operations in this area. If this occurred, then Nipisi pipe line, who are mainly Imperial, would control the Mitsue line with its extensions to Nipisi and Rainbow... ."

(Document # 54987, November 23, 1965, Texaco)³²⁷

"We deplore the cut-throat methods of Imperial Oil to gain further control of the oil industry at the expense of Peace River who are moving our oil at a competitive rate."

(Document # 54989, November 23, 1965, Texaco)³²⁸

"If Imperial gain control of the pipe line outlets, future gas sales from this area at competitive prices will probably not materialize."

(Document 54989, November 23, 1965, Texaco)³²⁹

Texex's worries were disregarded by its parent, Texaco Incorporated, and instructions were issued to ship the Texex crude via Mitsue-Nipisi (Document # 54983).³³⁰ The reasons were strategic. Texaco Canada had already emphasized to Texaco Inc. that competition between the two above-mentioned pipeline systems had developed into "a very real threat to our continuing high income from Federated" (Document # 54995)³³¹—a pipeline owned by Texaco Canada. Pipeline tariffs on the Mitsue-Nipisi system had fallen to the level where they were lower than on the Federated system, even though the former was considerably longer. Texaco Canada noted:

"It would appear to be in TexCan's best interests to ally itself with the Nipisi-Mitsue group since Home, an owner in that line, has the same interests we do in Federated. In addition, Imperial is one of the largest shippers through Federated."

(Document # 54991, October 5, 1965, Texaco)³³²

The threat to Federated's high earnings existed since the same companies which owned an interest in Mitsue-Nipisi also shipped on Federated. Texaco Canada noted:

"As we see it, Imperial and California Standard who are both substantial producers in the area served by Federated, would not be adverse to embarrassing Federated and attempting to force substantial tariff reductions."

(Document # 54995, October 1, 1965, Texaco)³³³

In other words, Imperial's control of crude being shipped through Federated provided it with the lever which led Texaco to cooperate with it in other areas.

Texaco's decision to dedicate its crude to the "Imperial controlled system" provides an excellent example of the way in which the strong mutual

interdependence at the producing level engendered behaviour that was adverse to competition. In return for continued high profits on their own pipeline system, Texaco Inc. was willing to foster the extension of Imperial's control to the north-west section of Alberta. Since Imperial recognized that the Rainbow pipeline — the northern extension of the Mitsue-Nipisi system — would "become a part of the main artery for future production from the Northwest Territories" (Document # 91481),³³⁴ this had serious implications not only in the short but also in the long run. Thus control by Imperial in existing fields was used to extend control into newly developing areas.

Indeed, the results which Texex predicted, were realized by the early nineteen seventies. The Peace River Pipe Line succumbed, and the northern extension of its system that competed directly with Rainbow was sold to a natural gas company. This left Rainbow "as the only crude transporter with facilities in Alberta north of the Mitsue-Nipisi area" (Document # 19762)³³⁵ and eliminated the "major competitor in transportation of volumes from existing northern fields and in future expansion" (Document # 18988).³³⁶ Even though Texex — Texaco Inc.'s Canadian producing subsidiary — had predicted this result, the U.S. parent constrained its subsidiary's actions so as to contribute to this outcome.

The other major Texaco company in Canada — Texaco Canada Ltd., — was no more of a competitive force than Texaco Exploration. Elsewhere, in the international volume, evidence was adduced to show how tight the control was that the parent exercised over Texaco Canada. The refining volume describes how exchange agreements were made between the parent firms of Imperial and Texaco, in the United States and how Texaco Canada was not advised of the arrangements until they were almost completed. The same type of parental control existed at the production level. Texaco Canada was generally provided with crude from Texaco Exploration — the U.S. parent's Canadian exploration subsidiary. Because of its dependence upon Texaco Exploration for domestic crude, Texaco Canada was removed as a potential competitive force in the production sector. As shall be documented, Texaco Exploration relied on Imperial for access to the most desirable crude types — special streams. Texaco Canada, being dependent upon Texaco Exploration, was no more capable than Texaco Exploration of engaging in independent activity that might have led to an outbreak of price competition in the producing sector.

Texaco Canada was not unaware of the effects of its position. The following excerpt outlines a discussion held between representatives of Great Northern and Texaco Canada. In it, Texaco Canada's disadvantages due to its dependency upon its parent are noted:

"During our talks, Great Northern stated that they could not see how we expected to obtain access to any but the highest price crudes with the type of operation we have in the crude buying field. In their opinion we would require a greatly expanded force

and would have to provide service and facilities which we do not presently make available. They suggested that we should be wise to take advantage of services and facilities which are presently available through other organizations. Without saying so in so many words, what Great Northern was proposing was that we enter into some kind of arrangement with them under which they would act as our purchasing agents. This would involve us in paying them a marketing charge of \$.01 per barrel purchased. We feel that it would be to our advantage to enter into some such agreement with Great Northern to supplement our present arrangement with Texaco Exploration.”

(Document # 6783, September 25, 1964, Texaco)³³⁷

That a senior official of Texaco should have agreed with Great Northern's recommendation to use purchasing agents other than Texaco Exploration is an admission of the handicap under which Texaco Canada operated. Other evidence supports this contention. The same document indicates that an official of Texex advised Texaco Canada that the parent company's refinery in Anacortes, Washington, had expressed a desire to obtain all Wizard Lake and Peace River production that Texex could make available and that Texex “therefore, were planning on diverting these crudes to Anacortes” (Document # 6783).³³⁸ Apparently Texaco Canada's position was of secondary importance. Thus Texaco Canada's freedom of action was so limited that it offered little competition to Imperial and Gulf.

Other major crude purchasers with Canadian refineries were Shell and Sun Oil. Statements by Shell already quoted indicated their perception of their dependence upon Imperial and the resulting “refinery-cost disadvantage” that they suffered (Document # 21513).³³⁹ As the largest net purchaser of crude oil (Document # 136099),³⁴⁰ Shell was particularly vulnerable to the control exercised by Imperial and, therefore, offered little in the way of competition in the producing sector. Sun Oil's position was essentially the same. Sun Oil, throughout the nineteen sixties sold its production to Imperial and in return purchased mixed blend streams from Imperial for its Sarnia refinery (Document # 126507).³⁴¹ Partially as a result of this arrangement, Sun Oil found itself handicapped by having to pay unrealistic prices for mixed blend — prices that were set by Imperial. In a 1969 study of crude types, Sun Oil considered the use of crudes other than mixed blend, but noted it would first have to gain control of these crudes. This course of action was rejected since:

“... gaining control of a particular crude might mean a price hike, which is a change in policy as Sun is a ‘price follower’, and would have to be approved by the Philadelphia office.”

(Document # 87575, July 18, 1969, Sun Oil)³⁴²

Once again a parental decision had relegated a Canadian subsidiary to a dependent role thereby assuring the dominance of Imperial.

The remaining fringe firms had even less influence on Canadian prices generally. Mobil lists the major purchasers as Imperial, Gulf, Shell, Texaco, and Great Northern. In Mobil's words:

"Although the remaining crude purchasers nominate for approximately 25% of Canadian production and own little of this production, their ability to affect the level of Canadian crude prices is small. Alternative crude supply does not exist for most Canadian crude refiners."

(Document # 18516, July, 1964, Mobil)³⁴³

The smaller companies were aware of their critical dependence upon the majors. Ashland, when considering purchases of mixed blend from British Petroleum, noted that whether it proceeded with this transaction depended upon the reactions of Imperial and Gulf:

"British Petroleum has 415,000 barrels of extra Mixed Blend line fill in Interprovincial, and offered to sell it to us in April at a 1¢ (marketing charge) discount. This would be quite a chunk of our anticipated April total sales of about 950,000 barrels. *Keith will check with Imperial and B.A. before moving, as we don't want to antagonize them.*"

(Document # 138105, April 3, 1967, Ashland, emphasis added)³⁴⁴

Statements like this are suggestive of the discretionary power enjoyed by Imperial. It would appear that the pre-eminent position of Imperial and, to a lesser extent, Gulf, prompted smaller firms to conduct their affairs with a view to retaining the goodwill of these two firms. Great Northern, as has been noted previously, was the one firm which exerted some influence on prices. However, its influence was in the area of the heavier crudes, which neither Imperial nor Gulf controlled in large quantities. Great Northern's initiatives eventually created a 'problem'. The manner in which it was resolved was discussed in the earlier section on coordination of production restrictions in heavy crude markets. Because heavy crude oil made up the one market in which Imperial was not dominant, other firms coordinated the imposition of controls on production in this area.

(iv) *Crude Control and Its Effect on Price Competition*

The concentration of crude control and the evolution of the price setting mechanism were inextricably bound together. Crude control by Imperial provided it the dominance that permitted it to become the leader in posting the price of the par crude and to obtain agreement from others on the pricing formula to be used in the equalization process. Equally important, once it established its dominance, given the lack of rivalry among members of the

oligopoly, Imperial's reputation as price leader strengthened its control position. Texaco noted:

"In attempting to purchase crude oil from independent producers, it is a decided advantage to be considered a leader in the posting of new crude prices. Imperial Oil has held this position for many years."

(Document # 136002, February 18, 1972, Texex)³⁴⁵

In and by itself, this does not explain why Imperial maintained a dominant crude control position since other firms could have engaged in more aggressive behaviour. During the nineteen sixties, they chose not to do so. As indicated, Texaco's Canadian exploration subsidiary (Texex) was not permitted to act in such a way to become a price leader and thereby challenge Imperial. (Documents # 136047-49).³⁴⁶ Similarly Mobil was dependent upon Imperial because of decisions made at the parent company level. With Texaco (Texex) and Mobil cast in the role of followers, it is not surprising to find smaller companies equally dependent upon Imperial. Sun Oil considered itself as a price follower — with any change in that status as having to come from head office (Document # 87575).³⁴⁷ Other small firms were equally submissive. Ashland, as has been noted, indicated that it would check with Imperial and Gulf before buying crude from British Petroleum since it did not want to "antagonize" the former companies. Similar considerations dominated its purchasing policies at the wellhead. In discussing the possibilities of its obtaining additional crude control, Ashland sounded the caution that it was "generally unwise to try to take existing sellers from Imperial, Gulf et al" though admitting that "there are opportunities from time to time" (Document # 137919).³⁴⁸

This lack of rivalry may be attributed to a recognition by the parties concerned that it was to their mutual benefit. With the surplus of crude that existed during this period, having the largest company — Imperial — make the decisions served to prevent competition from breaking down the price structure. This interpretation of events is in keeping with developments that occurred in the early nineteen seventies; for, as excess supply was reduced, the value of Imperial's coordinating role was reduced and the industry withdrew its support for some of the functions previously delegated to Imperial. Imperial's continued control gave it advantages that the rest of the industry were no longer willing to tolerate, since they no longer received concomitant benefits in the form of the maintenance of high prices. This was the period when firms which had not done so previously began to purchase crude for themselves. Table 10 indicated that Imperial's share of crude control began to decline at this time. Firms such as Gulf challenged Imperial's right to information about their operations — information that had been given freely during the period of surplus crude production.¹ These developments suggest that competition in the crude sector

1. See the subsequent section on pipelines.

was feasible but deliberately avoided by the arrangements that the industry adopted.

What emerges, then, is a picture of a producing sector dominated by one, or perhaps two major companies — Imperial and Gulf. The acquisition of crude control by Imperial was related to its production position, its extensive ownership of pipelines, and its ability to call upon international swap arrangements as the Canadian subsidiary of the world's largest private petroleum company — Exxon. Gulf's position was obtained as a result of similar advantages. The resulting concentration of crude control was outlined in a 1973 Shell document:

“Oil control then went by default to purchasers who were able to offer inducements other than markets, such as farmouts, ownership of pipelines, or other inducements so that today the control of oil bears no relationship to the demand for oil.”

(Document # 26579, January 25, 1973, Shell)³⁴⁹

Aided by the Alberta prorationing system and the aforementioned strategies, Imperial with the acquiescence of the industry established a predominance that gave it the discretionary power to lead the price setting process.

4. *Summary*

This section has shown that the predominance of Imperial and its ability to elicit a consensus from the industry concerning the mechanism used to establish crude prices was a result of an underlying asymmetry of power. Imperial's dominance stemmed not only from its willingness to adopt a leadership role but also from the crude control which it possessed. Essential to both the entrenchment of its control and the power that was derived therefrom was the set of operating rules adopted by Interprovincial Pipe Line — an Imperial controlled company. These delegated pricing decisions and the determination of the make-up of mixed blend streams to the companies which controlled the majority of crude shipments. As a result, companies like Imperial and Gulf, which developed control at an early stage could entrench their control because of their price setting power and their control of the terms of access of crude to the trunk pipeline.¹

This power enabled these companies to become natural leaders — if only because they possessed a myriad of ways to maintain oligopoly discipline. Firms which threatened the stability of the pricing formula could be penalized either by lower prices for the crudes they produced, or by making their access to the trunk pipeline more difficult. However, even though market power was not equally distributed, this does not mean that the other firms in the industry were passive participants. Earlier sections have indicated that these firms could and

1. This element of control is developed further in the section on special streams.

did enter into arrangements to restrict production in areas where Imperial did not play a leading or coordinating role. This section has adduced additional evidence that participation in the arrangements that served to restrict competition was voluntary, and was done for the benefits to be derived therefrom. For instance, Texaco's decision to enhance Imperial's control so as to protect its inordinately high pipeline profits is an example of one such consideration of mutual benefit that led to accommodation rather than competition. Similarly, the acceptance by other shippers of Interprovincial's operating rules that favoured Imperial's dominance must be viewed as accommodations — especially since agreement was withdrawn when, in the early nineteen seventies, as demand caught up with supply, the value of the service performed by Imperial declined. In conclusion, while crude control and pipeline procedures explain the facility with which an industry leader was chosen, they do not suffice to explain the success of the arrangement. For that, the participation of the fringe group of firms, if only through their tacit approval, was necessary.

F. Detriment and the Relative Price Structure: The Effect on Downstream Competition

1. The Relative Price Structure

The previous sections have concentrated upon the mechanism that was used to establish the domestic price of Canadian crude and the structural characteristics of the market that facilitated these arrangements. The adverse effects of this mechanism arose because of its impact on the pricing process. Because of the lack of trunk pipeline competition, the main pricing mechanism, along with the other arrangements described above, served to establish the basic price structure for most Canadian production. Mobil has indicated that the price of at least 80 per cent of production was controlled in this manner (Document # 18511).³⁵⁰

It is, however, not necessary to rely on the extensive coverage of the arrangements in order to establish their adverse effects. The effect of the agreement on both crude and product prices can be measured. As was developed in Volume II, the majors — led by Imperial — took advantage of the environment set by the National Oil Policy to keep the average price of Alberta crude above world market levels in markets where the two prices should have been equated if market forces had been allowed to function. The effect of the pricing mechanism adopted in the crude sector was also felt downstream in the product sector.

Other adverse effects were also present. The pricing formula, in conjunction with the crude allocation scheme, placed small downstream refiners at a disadvantage. As will be demonstrated, the pricing formula had the effect of overpricing some crudes and underpricing others. In turn, this meant those

firms that controlled the disposition of crude oil could direct overpriced crudes to the smaller firms and keep the underpriced crudes for their own use. As a result, the majors were able to establish an advantage for themselves in downstream markets. By the end of the period most of the small independent refiners — North Star, Cities Service, Canadian Oil Companies Limited — had been removed as competitive forces through acquisition by larger firms.

That petroleum companies might manipulate relative prices in such a way as to benefit themselves has been of some concern in other political jurisdictions.¹ In California, a state dominated by production of low gravity crude oils, the price differential has generally been in the order of some 6 to 7 cents per degree API. This has been done, some claim, so as to keep California's average prices unduly low. In countering this argument the oil industry pointed out that the large differential reflected the fact that heavy crude had a lower value on the west coast than elsewhere, because of the amount of residual fuel oil it yields and because of the lack of demand for this product in this area (Document # 21294).³⁵¹ Whatever the justification offered for the historical situation, by the early nineteen seventies several firms felt that these conditions had changed. Shell noted that "with the recent increase in residual fuel values, the value of heavy crude has increased" (Document # 21294).³⁵² Similarly, Mobil claimed that some adjustment in heavy crude prices relative to light crude prices was "necessary [in California] to properly reflect the value of these crudes" (Document # 18472).³⁵³ Adjustments of this nature depend upon the efficient operation of markets. Apparently, the structure of the industry in California was such that there was insufficient rivalry to attain this result. Shell made the following observation:

"Recent studies indicate there is no real economic driving force for purchasers (specifically those companies that post prices) to reduce current gravity differentials despite the higher indicated value for heavy crude."

(Document # 21295, April 5, 1971, Shell)³⁵⁴

In view of the concentration of crude control and the lack of competition in crude purchasing found in Canada, it is not surprising to find that a similar situation existed here.

One indication that Canadian relative prices did not reflect relative values was the very rigidity of the formula used. During most of the period under study, the formula remained unchanged although the relative supplies of different crudes varied. The rigidity of the Canadian market was noted by Mobil:

1. For a review of the complaint, see Staff Report of the Bureau of Economics to the Federal Trade Commission on the Structure, Conduct and Performance of the Western States Petroleum Industry, (Washington, D.C., September 1975).

“Prices for nearly all Canadian light crudes are based on a simple linear formula covering gravity and sulphur content applied to the price of reference crude. *For the U.S., no such simple formula exists, nor would it be possible.*”

(Document # 18512, July, 1964, Mobil, emphasis added)³⁵⁵

The rigidity of the formula is all the more remarkable in view of the fact that surpluses and shortages of particular types of crudes developed between 1962 and 1970, but no change was made in the pricing formula. For example, by the end of the nineteen sixties the relative proportions of low and high sulphur crude changed dramatically with the development of the Rainbow area. Since the weighted average sulphur content of the mixed blend stream would have been “in excess of the level desired by most Mixed Blend users” if Rainbow had been injected into it, an excess of sour crude developed (Documents # 139770, # 136457-8).^{356, 357} Yet the price of lower sulphur crude was not adjusted to reflect these differences. Instead two mixed blend streams were created.

The observations of several firms during this period also suggests that relative prices did not reflect relative values. For instance, Texaco stated that the pricing formula was too rigid and did not properly reflect the relative values of different crude types:

“Our difficulty is, of course, that the gravity sulphur formula is too arbitrary. It does not take into account any other characteristics of crude and is quite obviously far off the mark in relating Canadian crude oil values.”

(Document # 6653, July 5, 1965, Texaco)³⁵⁸

Shell expressed the same view:

“The present Alberta price scale which takes into account only sulphur and gravity does not ultimately reflect the refining value of various crudes.”

(Document # 136104, February 26, 1970, Shell)³⁵⁹

To evaluate whether the relative price structure in Canada was distorted, three sources of evidence can be used. First, comparisons to the situation as it existed in the United States and elsewhere are available. Generally the pricing differentials used elsewhere differed from those used in Canada. In the eastern United States and offshore, a commonly quoted figure was 2 cents per degree API. Another gravity formula used in the western United States provided for a price differential per degree API that varied. For instance, the equalization scheme adopted by a mid-western United States pipeline for sweet crudes used 2 cents per degree of gravity per barrel for crudes heavier than 39.9° API, and amounts which varied from 2 to 5 cents per degree of gravity per barrel for sour crudes heavier than 39.9° API (Document # 137141-2).³⁶⁰

Such comparisons between the scale used in Canada and elsewhere may be inadequate to prove the existence of distortions in Canada. This is because the scale that should have developed in Canada, if the market for crude

had been competitive, would have been a function of a number of variables. On the one hand, it would have reflected the structure of final product demand as well as the relative prices obtained in the market for each product. On the other hand, it would have had to take into account the type of refinery technology in place. The value of these variables may not have been the same in Canada as elsewhere. This makes comparisons of inter-country price differentials difficult.

However, there is a second body of evidence that solves this difficulty — the perception of the industry as to what the crude price structure should have been. Documents from several firms contain detailed evaluations of what the relative values of the different Canadian crudes should have been. For instance, Texaco drew the general conclusion that:

“... the refining value of Canadian crude oils does not increase at the same rate as the cost of crude oil escalates with gravity.

...

“The charge of 3¢ per °API up to 42° API of each component is not offset by improved yields of clean products.”

(Document # 6655-6, September 10, 1965, Texaco)³⁶¹

Similarly, Imperial noted that the gravity penalty on lighter crudes was excessive. It concluded that:

“The present price spread between light and medium gravity crudes is not representative of their estimated long range values. Under the study conditions the medium gravity crudes, Weyburn/Midale and Fosterton, display advantages of 20¢ and 10¢/B respectively over the light crude S.E. [South-East] Saskatchewan.”

(Document # 124299, January 28, 1964, Imperial)³⁶²

Other firms recognized this problem and stated it in one of two ways; namely, that light crudes were overpriced, or that heavier crudes were underpriced. It is significant that numerous firms recognized that the pricing formula distorted relative crude prices in this particular fashion, for, as was indicated, relative values depend uniquely upon the market demand faced by a firm as well as its refinery technology. That numerous firms perceived the problem to be similar is consistent with the view that the formula was responsible for a systematic distortion in the crude price structure.

Three types of evidence are consistent with this contention. First, there are statements that indicate a preference for lower priced over higher priced crudes. By itself, these indicate that the crude price structure did not reflect adequately the value of the heavier crudes relative to the lighter crudes. Secondly, there are studies that actually evaluate the extent to which certain crudes were over or underpriced. In all cases, the heavier crudes are relatively more profitable than the light crudes. Again this points to a distortion in the price formula. Finally, there are statements outlining a more appropriate

relative price structure. These too indicate that heavy and medium crudes were underpriced relative to light crudes.

Statements of the first type were made by Interprovincial Pipe Line, Texaco, British Petroleum, Mobil, and Sun Oil Ltd. The Texaco statement that the value of crude did not increase with gravity at the same rate as cost increased has already been quoted. In the same vein, Sun Oil complained in 1964 that the high gravity crude streams, such as Federated, made these streams uncompetitive. Interprovincial recounted the nature of Sun's complaint:

"...Messrs. Abbott and Papworth [of Sun] indicated that the Federated component in the Mixed Blend stream was the major reason for the high cost of the Mixed Blend. The Federated stream to the best of our knowledge based on the gravity-sulphur characteristics of the crude oil is the highest cost stream received into the Interprovincial system at Edmonton. Under present conditions, the Federated stream constitutes 50-60% of the composite Mixed Blend stream."

(Document # 5131, June 25, 1964, Interprovincial)³⁶³

Three years later, British Petroleum provided a more direct statement that Federated, a high gravity crude, was overpriced:

"...Some companies such as Texaco may not wish to upset the apple-cart as they have other production which could be considered by Imperial to be over priced, ie; 42° API-Federated."

(Document # 136453, August 29, 1967, B.P.)³⁶⁴

British Petroleum reaffirmed its belief that the higher cost crudes were overpriced in a 1969 study of its domestic crude costs. In this study it attributed cost advantages to certain companies (Document # 10488).³⁶⁵ The companies with a "clear cut advantage" were those using the heavier crudes. If these crudes were not underpriced relative to the lighter crudes, these companies would not have enjoyed an advantage; thus, B.P.'s analysis indicates that the gravity/sulphur pricing scale underpriced the relatively heavy crudes.

Mobil, in 1970, confirmed the existence of this distortion in the price structure. Heavy crudes were stated to have been generally underpriced relative to the lighter crudes:

"Production of these crudes [heavy] is insufficient to meet total industry demand. In addition, based upon our studies, these crudes have been underpriced (prior to the recent price changes) versus light Canadian crudes by as much as 35/50¢/bbl."

(Document # 18243, December 17, 1970, Mobil)³⁶⁶

Other statements indicate that this situation did not change dramatically in the early nineteen seventies. In 1971, Texaco Exploration approached Interprovincial for a special stream, arguing that the high cost crudes were overpriced. Interprovincial explained that Texaco was trying to reduce its intake of the higher priced (higher gravity) Alberta crudes:

"Texaco's main reason for this request is the fact that they are rather concerned over the high volume of Federated which is presently being directed into both the Sweet and Sour Mixed Blend streams. Federated is one of the higher priced Alberta crudes and hence if Texaco can put together a stream of the components indicated they can supply their refinery with a lower priced material."

(Document # 5149, June 14, 1971, Interprovincial)³⁶⁷

An even more explicit statement is made a year later by Texaco Canada as to the effect the adoption of a lower gravity crude stream had on profitability:

"Texaco Canada Limited commenced using Pembina Stream crude [37-38° API, .18%S] in their Edmonton refinery in 1971 and plan to continue using it for their total feedstock, since it is approximately eight cents per barrel cheaper than the Texaco Common Stream crude [41° API, .24%S] that was their major feedstock prior to 1971. They have also determined that the Pembina crude returns them equivalent product value compared with the Texaco Common Stream, therefore the price differential in the two streams is an economic gain to Texaco Canada."

(Document # 136043-4, February 22, 1972, Texex)³⁶⁸

In addition to these explicit statements as to crude preference, studies done by Sun Oil, Texaco, Imperial, and Shell, which estimated the profitability of various crude types, confirmed the distortion in the relative price structure and attached numerical estimates to it. Most of these studies were based on a common methodology. The difference between company revenues and costs, as a result of substituting other crudes for the base or numeraire crude, was used to estimate the profitability of the alternatives. Invariably the heavier, sour crudes had a positive profitability relative to the lighter, sweet crudes.

For instance, in 1964, Imperial evaluated the profitability of Weyburn/Midale (29° API, 2.1 per cent sulphur by weight) relative to South-East Saskatchewan Light crude (36° API, 1.0 per cent sulphur by weight). The results of its analysis are summarized in Table 11. The relative profitability reported in this table depends upon three factors — the existence of coking facilities, whether full or variable costs of refining operations are used, and the price of bunker chosen; nevertheless, in all cases this table indicates that the middle gravity sour crude was underpriced relative to the lighter, sweeter crude.

Figure 3 (included previously) graphs the prices of various Canadian crudes against their gravity. If the Fosterton, Weyburn Medium and Weyburn Light prices are joined, it is evident that the gravity differential in effect in Saskatchewan was not as large as that which generally prevailed. Yet Imperial's evidence indicates that even the Saskatchewan scale was excessive — the heavier crude was underpriced relative to the light. Therefore, the general scale of 3 cents per API° must also have been excessive, at least over the relevant API° range under consideration in this study.

TABLE 11

NET PROFITABILITY OF WEYBURN/MIDALE (W-M)
RELATIVE TO SOUTH-EAST SASKATCHEWAN (S.E.S.)
(\$/Bbl.)

<i>Conditions</i>	<i>Price of Bunker</i>	<i>Relative Value of Weyburn/Midale</i>	
		<i>No Coking</i>	<i>Coking</i>
Full Cost	2.60	.20	.18
Full Cost	2.25	.16	.18
Ex. Profit and Depreciation	2.60	.25	.19

Source: Document #124308, Imperial¹³⁶⁹

Sun Oil also provided an estimate of the profitability of various crude streams. In 1963, when it requested facilities from Interprovincial for a special stream, it supplied the figures reproduced in Table 12 on the relative value to Sun Oil of different crude streams. Using these numbers, Sun argued that if it continued to receive the common mixed blend stream, it could not effectively compete with those who were receiving lower gravity, specialty streams. In general, the table shows that the heavier the crude, the greater was its advantage compared to mixed blend.

TABLE 12

SUN OIL'S EVALUATION OF THE RELATIVE VALUE
OF DIFFERENT CRUDE STREAMS (1963)

<i>Alberta Crudes</i>	<i>Advantage over (under) Base Crude (¢/bbl.)</i>	<i>Gravity (° API)</i>	<i>Sulphur (%)</i>
Federated P.L.	6	40	.1-.2
Leduc	1	39	.2
Texaco P.L. ¹	(3)	39-41	.2-.3
Peace River P.L.	(5)	40	.2-.3
Pembina	(10)	37-8	.2
Redwater	(13)	35	.5
Britamoil	(25)	34	.9

Notes: 1. These gravity and sulphur numbers are representative of those reported by Canadian refiners in the early sixties. Texaco P.L., the Sun reference, was assumed to be what Texaco and others referred to as the Texaco common stream. If it was the Texaco Special or the Texaco Mix stream, then the gravity would have been 37-38°.

2. Desired Basic Crude according to Sun was 39° API 0.4% Sulphur—\$2.81/bbl. Comparative Mixed Blend at Edmonton 37° API 0.4% S—\$2.78/bbl.

Source: Document #5027, Interprovincial³⁷⁰ and Information collected by the Petroleum Inquiry.

Interprovincial, in commenting on this table, noted:

"This data clearly illustrates why the refiners who are in a position to do so are eliminating Mixed Blend crude [IOL, B.A.]. The comparison also points up why the shippers are demanding additional and segregated streams, e.i. [sic] B.A. 12,000 B/D of Britamoil, some Pembina and Texaco now shipping 14,000 B/D of Redwater to Regent."

(Document # 5027, December 6, 1963, Interprovincial)³⁷¹

Therefore Sun Oil's evaluation also shows that the heavier crudes were preferable feedstock at the relative prices set by the pricing mechanism used in Canada.

A further comparison of the profitability of light, medium, and heavy crude types made by Imperial is provided in Table 13. Once again, the relative profitability depends upon assumptions of refinery technology, but in both cases medium (29° API) and heavy (22° API) crudes are underpriced. These estimates also confirm that Saskatchewan light crude was being discriminated against relative to Alberta light crude.

TABLE 13

IMPERIAL'S EVALUATION OF THE RELATIVE
VALUE OF REDWATER, SOUTH-EAST SASKATCHEWAN,
WEYBURN/MIDALE AND FOSTERTON, 1964

	<i>S.E. Saskatchewan</i>	<i>Redwater</i>	<i>Weyburn/ Midale</i>	<i>Fosterton</i>
Gravity (°API)	37°	35°	29°	22°
Sulphur (%)	1.26	.46	2.34	2.96
<u>No Coking</u>				
Realization	\$4.30	\$4.23	\$4.09	\$3.74
Costs	4.26	4.25	3.85	3.63
Net	.04	-.02	0.24	0.11
Relative Advantage		-.06	0.20	0.08
<u>Coking</u>				
Realization	4.49	4.45	4.46	4.39
Costs	4.39	4.45	4.18	4.15
Net	0.10	0.00	0.28	0.24
Relative Advantage		-0.10	0.18	0.15

Source: Documents #124303, #124305, #124306,^{372, 373, 374} Imperial

Texaco, in a 1966 study, also reached the conclusion that light crudes were overpriced, but used a different method to do so. By comparing western Canadian crudes to foreign crudes laid down in eastern Canada, it calculated what values would have been required if Canadian crudes were to be made

competitive with foreign. These 'crude values' along with the actual costs are reported in Table 14. In light of the values thereby estimated, Texaco concluded that the "gravity escalation should be 2¢/°API from 23 API, and the S escalation should be limited to 5¢ premium for less than 0.5%, and 5¢ penalty for over 1.5%" (Document # 6657).³⁷⁵ Table 14 indicates that the lighter the crude, the greater the excess of cost over true value. Significantly, the heavier crudes were generally priced at levels very close to world scale. Therefore Texaco's study also supports the proposition that the Canadian pricing system overpriced light crudes relative to heavier crudes.

TABLE 14

TEXACO COMPARISON OF CRUDE
PRICES AND CRUDE VALUES, 1965

<i>Crude Type</i>	<i>Crude Value (\$/bbl.)</i>	<i>Crude Cost (\$/bbl.)</i>	<i>Cost Minus Value (\$/bbl.)</i>	<i>Gravity (°API)</i>	<i>Sulphur (%)</i>
Alta. Light Mix	3.17	3.37	+20¢	39.4	0.3
Redwater	3.11	3.21	+10¢	36.5	0.7
S.E. Saskatchewan	3.08	3.18	+10¢	36.0	1.0
Midale	2.89	2.85	- 4¢	30.0	2.1
Fosterton/Dollard	2.73	2.76	+ 3¢	23.5	2.7

Sources: Document #6657, Texaco³⁷⁶

That the distortion continued throughout the mid-nineteen sixties is confirmed by two subsequent studies performed by Imperial — one in 1966, one in 1968. Table 15 compares Imperial's 1966 estimate of the profitability of various crudes to mixed blend. The profitability of each — compared to mixed blend, which was priced on the Alberta scale — was inversely related to the gravity of the crude being compared to mixed blend.

TABLE 15

IMPERIAL'S EVALUATION OF THE PROFITABILITY OF
VARIOUS CRUDE TYPES IN RELATIONSHIP TO MIXED BLEND, 1966

<i>Crude</i>	<i>Type</i>	<i>Advantage ¢/Bbl.</i>	<i>Location of Refinery</i>
S.E.S.	Light	10	Sarnia
Manitoba	Light	10	Sarnia
Weyburn/Midale	Medium	29	Sarnia
Bowbell	Medium-Heavy	23	Sarnia & Regina
Fosterton	Heavy	27	Sarnia & Regina

Source: Document #91103, Imperial³⁷⁷

In 1968, Imperial estimated the relative profitability of a number of Alberta, British Columbia, and Saskatchewan crudes using linear programming methods to simulate refinery operations. Table 16 compares the calculated values of each crude compared to the actual cost. Most of the crudes used in the study were light, sweet crudes — Pembina, B.C. Light, Rainbow, Leduc, and Peace River — and they differed in cost one from another by no more than 6 cents per barrel. Since these crudes make up a homogeneous group, Imperial's calculations show little difference between cost and value. However, if the difference between the cost and the value of the two heaviest crudes— Weyburn/Midale and Britamoil — is examined, it is apparent that the value of these crudes is greater than their costs. This is a further indication that the API sulphur formula overpriced the sweet, light crudes relative to the heavier crude types.

TABLE 16
IMPERIAL STUDY OF RELATIVE VALUE
OF CRUDE TYPES, JUNE, 1968¹

<i>Crude Type</i>	<i>Value¹</i> (\$/bbl.)	<i>Cost Using</i> <i>API,</i> <i>S Formula¹</i> (\$/bbl.)	<i>Value</i> <i>Minus</i> <i>Cost</i> (\$/bbl.)	<i>Gra-</i> <i>vity²</i> (° API)	<i>Sul-</i> <i>phur²</i> (%)
Peace River	3.27	3.20	+7¢	40	.2
Leduc	3.19	3.17	+2	38	.2
Rainbow	3.20	3.16	+4	38	.4
B.C. Light	3.21	3.14	+7	40	.6
Pembina	3.18	3.14	+4	37	.2
Redwater	3.00	3.00	0	35 ³	.46 ³
Britamoil	3.01	2.93	+8	35 ⁴	.9 ⁴
Weyburn/Midale	2.82	2.46	+36	29	2.2-2.3
S.E. Saskatchewan	3.14	2.90	+24	37 ³	1.26 ³

Source: 1. Document #126500, Imperial³⁷⁸

2. Document #94706, Imperial³⁷⁹

3. Document #124303, Imperial³⁸⁰

4. Information collected by the Petroleum Inquiry.

Finally, Table 17 presents Shell's estimates of the relative profitability of various crude types as of 1971. Once more the profitability of various crude types is inversely related to their gravity. For instance, Gulf Alberta is only 2 to 3° API heavier than the two mixed blend streams considered by Shell, but was 15 cents per barrel more profitable, while Midale which is 8 to 10° API heavier, was 45 cents per barrel more profitable than the mixed blend streams.

TABLE 17
SHELL'S EVALUATION OF PROFITABILITY
OF CRUDE TYPES, JULY, 1971

<i>Type</i>	<i>Gravity</i> (° API)	<i>F.O.B.</i> <i>Price</i> (\$/bbl.)	<i>Profit-</i> <i>ability</i> (\$/bbl.)	<i>Location</i>
I.P. Sour	38	3.57	0	Oakville
I.P. Sweet	39	3.59	0	"
Gulf Alberta	36	3.35	15¢	"
Light Sour Blend	36	3.38	20¢	"
Midale	29	3.11	45¢	"
Lloydminster Blend	22	2.96	60¢ ¹	"

Note: 1. Basis-Bunker = \$3.20/bbl.

Source: Document #25147, Shell³⁸¹

Each of the above references originated with one of the oil companies and is limited in the number of comparisons made. A more comprehensive analysis for the industry as a whole is available from an independent source. Using a linear programming analysis — as did Imperial — this study calculated shadow prices for a wide variety of Canadian crudes. Since two objective functions — total costs and variables costs — were used for the linear programming problem, two sets of values were generated. Both are reported in Table 18.²

The results are not dissimilar from those reported by the oil companies. Relative to Alberta light crude, all other crudes are underpriced. Imperial's results for the same time period indicated that the profitability of Weyburn/Midale compared to Redwater was 26 to 28 cents per barrel, Fosterton relative to Redwater was 13 to 25 cents per barrel. The estimates found in Table 18 are 23 to 26 and 9 to 11 cents per barrel, respectively. Table 18 indicates that Saskatchewan crude was also underpriced relative to Alberta crude — as did Shell's evaluation reported in Table 17. In addition, the price scale in Alberta underpriced medium and heavy crudes relative to light crudes.

1. J.H. Dagher, "Effect of National Oil Policy on the Ontario Refining Industry", Unpublished Phd. Thesis, McGill University, 1968.
2. Dagher experimented with three constraints in order to obtain a pattern of production from various fields similar to that which actually occurred. In the first case, imports were freely permitted; in the second, only heating oil imports were allowed; in the third no imports were allowed and the price of fuel oil was not allowed to be above the cost equivalent of natural gas. The latter constraints in his opinion produced almost exactly the production configuration that actually occurred. (Dagher p. 782) It is the shadow prices or "duals" from this run that are reported in Table 18.

TABLE 18
VALUE OF CANADIAN CRUDES FROM LINEAR PROGRAMME, 1965

<i>Crude</i>	<i>I</i> <i>Price</i>	<i>II</i> <i>Variable</i> <i>Value Under</i> <i>Delivered</i> <i>Cost</i> <i>Minimization</i>	<i>III</i> <i>Value Under</i> <i>Total</i> <i>Cost</i> <i>Minimization</i>	<i>IV</i> <i>II-I</i>	<i>V</i> <i>III-I</i>
Sask. Light	3.17	3.37	3.37	+20	+20
Medium	2.88	3.14	3.11	+26	+23
Heavy	2.89	3.10	3.06	+21	+17
Fosterton	2.88	3.00	2.97	+11	+ 9
Leduc	3.37	3.48	3.48	+11	+11
Redwater	3.22	3.24	3.22	+ 2	0
Alberta Light	3.37	3.37	3.37	0	0
Medium	3.01	3.30	3.30	+29	+29
Heavy	2.89	3.02	3.00	+13	+11
Lloydminster	2.95	3.11	3.09	+16	+14

Source: Dagher, *op. cit.*, p. 685 and Appendices.

There is also the evidence on the distortions inherent in the price structure that comes from various companies' perceptions as to what would have been an appropriate pricing scale for Canadian crude. Texaco's 1965 study provides an early appreciation of the need for a different pricing scale. In Texaco's words:

"The light crudes are wrongly priced as are the high sulphur crudes. The gravity escalation should be 2¢/° API from 23 API and the S escalation should be limited to 5¢ premium for less than 0.5% and 5¢ penalty for over 1.5%."

(Document # 6657, September 10, 1965, Texaco)³⁸²

That at least the sulphur penalty was unrealistic is admitted by Imperial at an early date. In 1965, in analyzing the justification for the sulphur penalty used, Imperial noted that, in the case of Saskatchewan light crude, the penalty was too large:

"Manufacturing have examined the true cost of sulphur removal equipment in line with your thought that increases in S.E.S. light and other light crude prices, could be better handled through a change in the sulphur penalty. On S.E.S. light, for example, they believe that 8¢/B of the 10-12¢/B sulphur penalty is required to pay for sulphur removal equipment, so only a minor increase could be justified."

(Document # 91095, December 8, 1966, Imperial)³⁸³

Imperial was not unaware of the fact that the gravity scale used in the pricing formula was out of keeping with world practice (Document #

117938).³⁸⁴ Throughout the nineteen sixties this led to medium crudes being underpriced relative to light crudes. Imperial noted:

"Under the study conditions the medium gravity crudes, Weyburn/Midale and Fosterton, display advantages of 20¢ and 10¢/B respectively over the light crude S.E. Saskatchewan."

(Document # 124299, January 28, 1964, Imperial, emphasis added)³⁸⁵

Texaco clearly stated the problem: the refining value of Canadian crudes did not increase at the same rate as the cost of crude escalated with gravity (Document # 6656).³⁸⁶ Mobil made the same observation and argued, as did Texaco, that the gravity escalation should have been no more than 2 cents per degree API per barrel. A Mobil analyst wrote:

"I am not convinced that a small increase in Midale-Weyburn or lowering of the Fosterton would move any substantial volume of Fosterton type crude, however, it is apparent to me that a spread of some 2¢ per gravity degree will be indicated in refinery yield values."

(Document # 18229, June 22, 1967, Mobil, emphasis added)³⁸⁷

The foregoing indicates that between 1960 and the early nineteen seventies, a variety of firms all found a similar bias to exist in the pricing system. It demonstrates that the problem was not short term. It also indicates that this was more than the perception of a single firm which might have been in a unique position. Based on the above, it may be concluded that the price formula set by Imperial and the other major shippers overpriced light crude, relative to heavy crudes, or underpriced the heavier crudes, relative to the lighter crudes.

2. *Oligopsony and Price Distortion*

One explanation for the distortion in prices is that it benefited those firms that controlled the price structure at the expense of those who did not. The advantage was created in two different ways. First, in marketing and refining, the same control that permitted the leading firms to establish the price level also allowed them to direct over-valued crudes to smaller refiners thereby conferring a cost disadvantage upon this group of firms. This will be the subject of the next section. Secondly, in production, the crude price structure benefited certain firms whose production was concentrated in those crudes that were over-valued. By using their power to over-value their own crude relative to that of others, the majors would have conferred a second advantage upon themselves. Since they were able to do so because of a concentration of power at the buying level, this provides a classic example of the use of oligopsony power to drive down the price level.

Crude production from at least four areas was regarded by the industry as underpriced. Imperial, it has been indicated, recognized that the Midale/Weyburn crude that it purchased from Mobil was worth considerably more than it paid. Mobil was cognizant of this situation as well. When considering Great Northern's 1966 price increase, Mobil noted that it could count on Imperial to purchase all of Mobil's own Midale/Weyburn at the higher posted price (Document # 18037).³⁸⁸ At the same time, in considering Great Northern's proposed price increase, Imperial's evaluations indicated that South-East Saskatchewan, Midale/Weyburn and Fosterton/Dollard were all under-priced (Document # 91103).³⁸⁹ In addition, Shell noted in 1967 that Midale/Weyburn was underpriced (Document # 42685).³⁹⁰ Evaluations of relative values of crude types by Imperial, in 1968, (Document # 126500)³⁹¹ and Shell, in 1971, (Document # 25147)³⁹² also confirmed the existence of these distortions.

Each of the production areas referred to above, where crude was under-priced, had two characteristics in common. First, they were located in Saskatchewan where no prorationing existed. Secondly, the concentration of crude control relative to production for the majors was relatively high.

By the mid-nineteen sixties, the market structure at the purchasing level in Saskatchewan had become highly concentrated. Tables 19, 20, and 21 show the concentration of production and crude control for South-East Saskatchewan Light, Midale/Weyburn and Fosterton/Dollard for the year 1966. In each case, control was exercised by a few dominant firms. Imperial Oil, Gulf, and Shell between them controlled 76 per cent of South-East Saskatchewan, and 65 per cent of Midale/Weyburn while producing only 32 per cent and 18 per cent of production in each area respectively. Great Northern dominated Fosterton/Dollard by controlling 57 per cent of production. This structure provided the pre-condition for oligopsonistic pricing behaviour.

Imperial's actions and policies are consistent with the contention that the majors maintained the price in these areas at comparatively low levels because it was in their interests as purchasers. In December 1966, Great Northern announced a 10 cent per barrel increase in the price it offered for Fosterton, Midale, and South-East Saskatchewan crude (Document # 91092).³⁹³ Imperial's analysis of the proposed increase concluded that it was undesirable for two reasons. First, it might have affected prices elsewhere—"an upward move on S.E.S. light would have serious connotations on all light crude prices" (Document # 91096).³⁹⁴ Secondly, Imperial and other major shippers would have incurred substantial additional crude costs because of their net purchaser position (Documents # 91096, # 91093).^{395, 396} As a result, the Imperial analysis recommended that no price increase be posted, except perhaps in Fosterton where it did not have much crude control (Document # 91096).³⁹⁷ Imperial decided to issue a sharply worded warning that it regarded price increases as unjustified. It read in part:

“Imperial believes there is no justification at the present time for the increases in crude oil prices which have recently been posted for certain fields in Alberta and Saskatchewan.”

(Document # 91090, December 12, 1966, Imperial)³⁹⁸

TABLE 19
PRODUCTION AND DISPOSITION OF S.E.
SASKATCHEWAN LIGHT, DECEMBER 1966
(MB/D)

<i>Company</i>	<i>Production</i>	<i>Purchases</i>	<i>Total Control</i>
Imperial	19	35	54
Gulf	10	7	17
Shell	3	2	5
Sun Oil	6	—	6
B.P.	3	—	3
Texaco	1	—	1
Northwestern	—	—	—
Great Northern	?	?	5
Balance	49	(49)	—
Total	91	—	91

Source: Document #91097, Imperial³⁹⁹

TABLE 20
PRODUCTION AND DISPOSITION OF
WEYBURN/MIDALE, DECEMBER 1966
(MB/D)

<i>Company</i>	<i>Production</i>	<i>Purchases</i>	<i>Total Control</i>
Imperial	3	16	19
Gulf	1	7	8
Shell	14	24	38
Texaco	?	?	3
Murphy	?	?	3
Mobil	14	(14)	—
Great Northern	?	?	3?
Balance	42	(42)	—
Total	74	—	74

Source: Document #91099, Imperial⁴⁰⁰

TABLE 21
PRODUCTION AND DISPOSITION OF FOSTERTON,
DECEMBER 1966
(MB/D)

<i>Company</i>	<i>Production</i>	<i>Purchases</i>	<i>Total Control</i>
Great Northern	?	?	57
Northwestern	—	—	8
Ashland	—	—	7
I.O.L.	1	3	4
B.A.	—	—	—
Shell	—	—	—
B.P.	—	—	—
Mobil	20	(20)	—
Balance	55	(55)	—
Total	76	—	76

Source: Document #91101, Imperial⁴⁰¹

As a result of these pressures, Great Northern's attempt to increase prices in Saskatchewan failed, except in the Fosterton field. Interprovincial noted in late 1967:

"Industry pressure forced them [Great Northern] to retract their posted price on Midale and Southeast [sic] Saskatchewan crudes but their pricing for Fosterton held."

(Document # 12013, September 27, 1967, Interprovincial)⁴⁰²

A year later, even the increase posted for Fosterton had been rescinded. Therefore this episode shows how the majors successfully prevented the posting of higher crude prices and supports the suggestion that a major reason for the pricing behaviour in this area was their net purchaser position.

There is, however, one other question which needs to be answered. The self-sufficiency position of Imperial was such that it apparently would have benefited from lower crude prices in most producing areas.¹ If the same pressures existed in both markets for lower crude prices, why it led to the under-valuing of crude in one market compared to the other must be explained. The answer lies in the fact that Alberta crude was prorated and Saskatchewan crude was not. Prorating was a necessary condition for the success of the mechanism that established crude prices. The Alberta government implemented this system while Saskatchewan refused to do so. Provincial royalties, however, depended upon the average price of crude. If Alberta crudes had generally been under-valued, then the provincial government would not have been expected to

1. For Imperial's analysis of its position, refer to Tables 9 and 27 in Volume II.

continue its prorationing scheme which benefited the industry. In summary, since Alberta provided the key that allowed the overall average price to be established at a level that would not otherwise have been possible, short-changing that province was not a reasonable course of action. Saskatchewan, on the other hand, did not contribute to industry stability and the industry, therefore, chose to discriminate against crudes from this province.

While this provides an explanation of the nature of the distortion that developed in the crude price structure, it is not as important as an understanding of the way in which this distortion served to reduce downstream competition in the refining and marketing sectors. This is the subject of the next section.

3. *Downstream Effects of Price Distortion*

(a) *Interaction Between Control, Prorationing, and Crude Pricing*

Crude control influenced the degree of competition not only in the producing, but also in the refining sector by creating entry barriers therein. To fully understand how this was achieved it is necessary to examine the interaction between the Alberta prorationing system, the crude pricing system, and the creation of crude streams in the Interprovincial Pipe Line system.

During the nineteen sixties, although supply exceeded demand at the prices set by the major companies, production in Alberta was restricted by the provincial government's prorationing scheme which ensured that supply would not exceed demand. This demand consisted of frequent 'nominations' filed by purchasers that were then distributed by the provincial government to producers as rights to produce. However, individual purchasers continued to contract with producers for their requirements. They were not assigned the production from a specific well.

While this procedure guaranteed total supply would equal demand, and that a purchaser could find an amount of crude equal to its 'nomination', it did not guarantee that each refiner would obtain the crude that it most desired. If the price system had worked reasonably well, a purchaser, faced with the prospect of receiving a crude that it did not really want, would have been compensated by a price adjustment for that crude. But, as has been demonstrated, the price system was not allowed to function. Those refiners who controlled less crude than they purchased had to accept whatever crude was available at the price that was determined by the pricing formula.

This method of equating supply with demand, in conjunction with concentration of crude control and a distorted price system, gave net purchasers of crude — that is, purchasers who bought more crude than they used in their refineries — the potential power to create a competitive advantage for themselves at the refining level. To the extent that net purchasers reserved the crudes

with the greatest 'value' for themselves and directed those with the least 'value' to others, they would have created an absolute cost advantage for their own refinery operations. Even if the net purchasers did not create a cost advantage for themselves in all cases, the potential to do so would have created a powerful instrument that could be used to forge unity among refiners. For the competitiveness of a refiner's crude costs would have depended upon the goodwill of the net purchasers.

As noted earlier a crude had 'value' or was more 'desirable' as a result of the rigidities that characterized the Canadian pricing system. Canadian crudes were priced by a formula that did not correctly relate the price of a crude type to the value of product yielded by that crude after refining. Those crudes that were underpriced by this system were 'desirable' in the sense that they were more profitable to the refinery. Those companies that were able to control crude in general and direct these particular types to their own refineries would, therefore, have been able to establish a competitive advantage.

Finally, the importance of the concentration of crude control must be appreciated. Without the existence of control, a rigid price structure could not have been maintained. The outward manifestation of concentration was that some companies purchased more crude than they needed for their own refineries. Companies which controlled less crude than they used had to purchase from companies that controlled 'excess' crude. This had two effects. First, it permitted those with 'excess' crude to determine their competitor's requirements and to influence their competitive position. In the words of Imperial Oil, the largest net purchaser in Canada:

"... we control sufficient crude to satisfy our own requirements and have a surplus. Competitor purchasers must then come to Imperial for their requirements and at that time we can determine in some cases the specific use to be made of the crude."

(Document # 139124, February 21, 1964, Imperial)⁴⁰³

Given the control exercised, the net purchasers could influence both their own crude costs and those of their competitors who did not have much crude under their control. Secondly, it permitted crude control to be translated into price control. If those companies in need of crude had faced a large number of suppliers, prices would not have been held at unrealistic levels. Imperial, through the use of its predominant control position, interjected itself between the suppliers and the purchasers, thereby, controlling the pricing decision.

Crude control gave the major companies two powers that could be used to create a crude cost disadvantage for their downstream competitors. The first was the power to determine who obtained access to the most 'desired' crude streams; the second was the power to determine the quality of the mixed blend stream — the remnant after the special streams had been removed. While the two are obviously related, both bear investigation because of the light they shed

on the behaviour of the major purchasers and the effect of this behaviour on competition. But before this is done, the critical role played by the trunk pipeline in this process needs to be described.

(b) *The Role of Interprovincial Pipe Line*

(i) *Introduction*

While a later section of this volume deals at greater length with the pipeline sector as a whole, the ability of the dominant shippers — led by Imperial — to establish prices and to disadvantage smaller refiners cannot be understood without fully describing the key role that Interprovincial played in this process. First, it acted as an intermediary in price discussions. Secondly, it abdicated certain operational roles to Imperial Oil that permitted this company to coordinate the industry's activities. Thirdly, it adopted certain policies that gave Imperial preferential access to the under-valued crude streams and permitted Imperial to govern the access of other companies to similar streams.

In each case, Interprovincial's actions enhanced the ease with which industry coordination on prices was maintained or established. While serving as a conduit for information flows, Interprovincial tried to reduce misunderstandings and resolve inter-company differences. In addition, it conferred upon Imperial powers that were essential to the maintenance of oligopoly stability, in that it provided Imperial with the information and the disciplinary instrument necessary to coordinate the industry's behaviour.

(ii) *The Intermediation Role of Interprovincial*

Earlier discussions have highlighted how certain firms brought together at the pipeline level used these contacts to discuss prices and the allocation of crude supplies. During these periods Interprovincial Pipe Line played an active role by communicating information from one company to another. As such, it was not always necessary for the producing companies to communicate directly. This would have been particularly important when the discussions began to impinge upon sensitive areas.

Interprovincial was a vehicle that Imperial used to conduct its negotiations and to exert pressures on other firms. Imperial was sensitive to the ramifications of its discussions with other companies — both because of its size and because of the experience of its parent (Standard Oil of New Jersey) with American anti-trust law. Its control of Interprovincial¹ provided it with a convenient conduit through which it could pass information — a conduit that the other members of the industry came to appreciate and to use.

1. See Document # 5286-7⁴⁰⁴ for Interprovincial's recognition of the control Imperial had.

Documents from various firms describe the role Interprovincial played. Distortions in the crude price structure provided companies with the incentive to acquire special streams whose acquisition cost was less than market value. But transportation of these streams required the use of break-out storage tanks. Imperial had control of these tanks — control passed to it by Interprovincial. Thus, Imperial's cooperation and permission was essential if access to special streams was to be obtained. The following quotation from Mobil illustrates the critical role of tankage availability in the movement of special streams:

"We, in conjunction with Fred Tracy, are pursuing the capability of delivering Fosterton/Dollard batches to Mobil's East Chicago and Woodhaven refineries. To date it would appear that this can be accomplished. In order to deliver Fosterton/Dollard to Woodhaven Mobil must obtain approval from Marathon to use a tank, presently in the Buckeye system, which is committed to Wyoming, for Fosterton/Dollard movement. *Considering the mutual interests of the two companies I would see no problem in receiving the necessary approval.*"

(Document # 18673, January 26, 1971, Mobil, emphasis added)⁴⁰⁵

Gulf documents provide evidence on Interprovincial's role in the allocation of tankage. In discussing the difficulties in coming to a joint agreement on the use of tankage for the movement of special streams, Imperial officials advised Gulf that they thought certain common storage might be allowed but "they do not wish to state this position in writing" and "they would like IPL to act as the intermediary with Gulf and other shippers in this matter" (Document # 62147).⁴⁰⁶ This indicates that Imperial treated Interprovincial as its agent in sensitive negotiations such as this.

A number of examples show the nature of Interprovincial's intermediation role throughout the nineteen sixties. As early as 1951, Interprovincial was relaying Imperial's offers of special arrangements to accommodate other companies' needs for a special crude stream (Document # 11983).⁴⁰⁷ On other occasions, Interprovincial referred interested parties directly to Imperial. For instance, in 1962, Interprovincial referred a request from Texaco Exploration for a "special type" refined product stream to Imperial (Document # 5154).⁴⁰⁸ When Sun Oil came to Interprovincial in the early nineteen sixties for a special stream, Interprovincial held a "general discussion" on the matter with Imperial and Gulf (Document # 5129).⁴⁰⁹

The actions of Interprovincial in fulfilling the role assigned to it had certain anti-competitive effects. For instance, in 1959, Mobil approached Interprovincial for a special stream — a stream it intended to put together to sell to Cities Service in Ontario. Prior to this, Gulf had supplied Cities Service. Knowing this, Interprovincial referred Mobil to Gulf for use of tankage controlled by Gulf. The following excerpts from an Interprovincial document describe the pipeline's role:

"While you were away from the city this past week a development has occurred in the Weyburn-Midale producing area of South East Saskatchewan, the effect which we cannot properly assess as yet. As far as Interprovincial is concerned we have heard that Mobil Oil has arranged to move 50,000 barrels of Weyburn-Midale type crude to Cities Service at Bronte at a posted well head price of \$1.83 per barrel.

...

"I was first contacted by Mobil Oil last Thursday concerning the movement. . . . I referred Mobil Oil to British American's supply department office in Calgary for two reasons. The first because of the fact that an additional stream through Sarnia means the new oil would have to pass through one of our tanks which is presently in other crude service. . . . *I also felt that because Mr. O'Neil's office [B.A. (Gulf)] has represented Cities Service exclusively in previous crude oil purchases this would be the logical place for Mobil Oil to start negotiations.*

"Last Friday I had a telephone call from Mr. O'Neil [B.A. (Gulf)] and I outlined the conditions upon which Interprovincial would accept this 50,000 barrel movement to Cities Service. As outlined above I pointed out it depended upon receiving concurrence from British American as to the use of the Fosterton-Smiley Coleville tank at Sarnia. . . . To date we have had no concurrence from British American and *I did not take steps to set the movement up because I was under the impression that British American was acting on behalf of Cities Service.*"

(Document # 13056, July 23, 1959, Interprovincial, emphasis added)⁴¹⁰

Thus Interprovincial used its role to alert a major reseller of crude (Gulf) as to the possible loss of an account. Equally important, Interprovincial placed the competitor (Mobil) at the mercy of Gulf by requiring Mobil to obtain permission from Gulf before the Mobil stream was moved. Interprovincial's role served, therefore, to strengthen the power accruing to Imperial and Gulf from crude control.

Other actions of Interprovincial take on added importance when seen in light of the intermediary role it played and in light of the industry's perception of Interprovincial's relationship to Imperial and Gulf. In particular, Interprovincial apparently served to admonish firms that deviated from the general price structure of the consequences of their actions. During one of the few instances when price competition broke out, Interprovincial made its displeasure known. In view of its role as a messenger, and in view of the discretionary power available to Interprovincial in scheduling shipments, communications of displeasure would not have been without impact.

An example of this behaviour is provided by events surrounding the dual pricing system which developed in Saskatchewan during 1959-60. One of the smaller Canadian companies, Canadian Oil, posted a lower price for Midale crude through Gibson, its purchaser. It is important to note that this was the period after Suez (1957) when world crude prices had begun to fall. A small refiner and marketer like Canadian Oil, with little crude production, had less interest in maintaining a high Canadian crude price than the major firms. The

major firms recognized the dangers of permitting any one crude to deviate from the crude formula that had been established. Imperial's concern over this matter is documented elsewhere (Documents # 91121, # 91095).^{411, 412} As such, it was in their interest to ensure that representations were made to any offending parties.

Earlier examples were cited to highlight Interprovincial's role in promoting the interests of the major crude purchasers. It is, therefore, not surprising to find that Interprovincial followed a course of action that would have aided the price leaders in maintaining the industry price structure. In June of 1959, Interprovincial, in its discussions with the firm acting as the agent for Canadian Oil, warned it of the dangers of this course of action:

"When it was suggested to Mr. Hand [of Gibson Petroleum Company] that perhaps Gibson and Canadian Oil Companies were playing a dangerous game in so far as crude oil price structures are concerned Mr. Hand replied that he felt the effect had been greatly over emphasized amongst the producers and in the press."

(Document # 13062, June 10, 1959, Interprovincial)⁴¹³

Interprovincial's intermediary role extended to other areas. For instance, it was provided with advance information as to certain actions of individual firms. Given its general role as a conduit for information, it is reasonable to infer that these communications were meant to be passed along and reaction to them relayed in return. Indeed this occurred; Interprovincial relayed information between the parties to negotiations over special streams. For example, when Imperial initially turned down Texex's request for use of their tankage to move a special stream in 1962, Interprovincial reported that in discussing the matter with Imperial:

"Mr. Huffman [Imperial] was quite interested to know Texaco's reaction to Imperial's answer..."

(Document # 5152, June 7, 1962, Interprovincial)⁴¹⁴

Similarly, in 1962, advance information was given to Interprovincial by Texaco of its intention to post a new price for Midale crude (Document # 5155).⁴¹⁵ This is the field where multiple pricing had existed at various times since 1959 when Canadian Oil lowered its posting. It was Canadian Oil's agent, Gibson, which had been told it was "playing a dangerous game" by Interprovincial (Document # 13062).⁴¹⁶ In light of Interprovincial's revealed interest in the price structure and its recognized role as intermediary, Texaco's actions would have made this intermediation task easier.

(iii) *Interprovincial's Delegation of Authority to Imperial*

Interprovincial's intermediation role described in the previous section required active participation from this company. But perhaps more important was its delegation of some of its duties to Imperial. This occurred with respect

to information collection, control over special break-out tankage, and the determination of the quality of mixed blend streams. This transfer of power to Imperial in each of these areas facilitated the latter's coordination of industry activity. Each of these areas is discussed in succeeding sections.

(a) *Information Collection*

Imperial played an essential role in the industry's price setting process. It was able to dominate the industry partly because of the power that it derived from having information on the activities of its competitors. This information was obtained because of the duties delegated to it by Interprovincial.

Successful collusion in an oligopoly has been characterized, on the one hand, as depending upon the ability of the industry to detect deviations from the agreed-upon price and upon their possession of a credible sanction to exercise against recalcitrant firms.¹ On the other hand, others have stressed that successful collusion in an oligopoly depends upon the development of mutual trust and understanding among its members.² Whether the first or second emphasis is chosen, Imperial's predominant position and the power that it either co-opted or had conferred upon it, served to solve the 'oligopoly' problem in an efficacious manner.

Imperial was assigned at least four functions with respect to Interprovincial's operations. At various times it was the mixed blend coordinator (Document # 11752-3).⁴¹⁷ As such, its task was to approach those companies which were injecting crudes into the mixed blend stream "requesting an adjustment in either their sweet or sour input components to suit actual blending operations" (Document # 11752-3).⁴¹⁸ It also acted as a coordinator of feeder pipelines, ascertaining the volume that would be shipped to Interprovincial by each of these pipelines, and relaying this information to Interprovincial so that the latter could schedule its operations (Document # 11921).⁴¹⁹ Imperial also filled the role of shipper contact for Interprovincial (Document # 11933).⁴²⁰ In this capacity, it received major complaints about Interprovincial. Imperial also acted as the equalizer for mixed blend. On the basis of the price formula that it established in consultation with other shippers, Imperial calculated the amount owing to each shipper as a result of the types of crudes that were injected into the mixed blend.

The importance of the information so obtained in maintaining the industry price structure cannot be overstated. Maintenance of prices at other

1. D.K. Osborne, "Cartel Problems", *American Economic Review*, (December 1976), pp. 835-44.

2. B. Yamey, "Notes on Secret Price-Cutting in Oligopoly," in M. Kody ed., *Essays in Honour of Professor H.M. Robertson, Studies in Economics and Economic History*, (MacMillan: 1970), pp. 280-300.

than competitive levels requires knowledge of the competitive strategies of others and the characteristics of their cost functions. Imperial received just this type of information as a result of its coordinating activities. Imperial itself recognized the importance of the information it received and summarized it as follows:

- "2. Through copies of equalization statements or acquisition cost statements we are able to determine average stream price, which, together with tariffs published by pipelines, enable us to determine laid-down costs of all crudes at specified refinery points.
- "3. Through our normal contacts with gathering and trunk lines, information is obtainable on crude quality and the volumes of each type run by all refineries.
- "4. When new discoveries are considered for inclusion in gathering pipeline streams, in some cases competitors have requested that certain crude types be excluded, as they do not fit the pattern of the gathering stream used for specific purposes. End use of the stream is determined.
- "5. Historically Imperial has been the prime coordinator of trunk pipeline movements and this enables us to determine both short and long term requirements for crude types. Very often competitors will tell us the reason for changes in types required.
- "6. Again, through our affiliation with trunk pipelines we are able to determine, on a short term basis, competitor requirements for certain crude types. e.g. Shell-Winnipeg have requested that two 40 MB batches of Pembina crude be delivered during March 1964.
- "7. In discussions with third parties we are able to obtain information on volumes and quality of crude that Imperial does not purchase and also disposition of these types, for example Lloydminster condensate blend under contract to Murphy and B.A.; Taylor Flats condensate movement to Shell-Anacortes; Windfall condensate for Shell-Anacortes.
- "8. Imperial presently purchases approximately forty-five per cent of the total crude produced in Western Canada and with the exception of a few areas, such as Fosterton, we control sufficient crude to satisfy our own requirements and have a surplus. Competitor purchasers must then come to Imperial for their requirements and at that time we can determine in some cases the specific use to be made of the crude."

(Document # 139123-4, February 21, 1964, Imperial)⁴²¹

The importance of this type of information to Imperial was recognized by others. Some six years after the above statement, the industry considered the establishment of a Statistical Supply Committee (SSC), which, it was envisaged, would perform many of the activities previously undertaken by Imperial. Imperial's reaction indicates the value placed on the role that it possessed. In objecting to the proposal, a senior Imperial official noted that:

"While Imperial perhaps does inherit, by default, an 'industry responsibility' which such a society could properly undertake, I suspect that we gain in this respect in being more knowledgeable about industry activity, and I would be almost reluctant to

abandon this position in favour of a role which provides only input to a formal industry society.”

(Document # 139243, July 3, 1970, Imperial)⁴²²

As a result of the information gained, Imperial was able to determine the average cost of the crude used by each of its competitor's refineries and ascertain, through the type of crude being used, the planned product mix. Therefore it could predict both market strategies and crude costs of other firms. Since Imperial controlled the majority of Alberta crude, access to special streams, the composition of mixed blend, and the pricing formula, it possessed all the tools necessary to maintain oligopoly discipline. Using the instruments described above, Imperial could critically affect the crude costs of almost every domestic Canadian refiner east of Alberta. Combined with the knowledge Imperial acquired on the position of each, it had the ability to limit independent actions by its competitors.

Imperial's power had two mutually reinforcing effects. First, Imperial was placed in a position where it had a substantial advantage over its competitors; at least, the others were dependent upon Imperial for access to competitively priced crude oil. This power would have enabled it to exert its dominance and prevent others from operating too freely under the umbrella protection of its pricing policy. But secondly, to the extent this power was used for the good of other major participants, these firms were less likely to challenge Imperial's role. How these two factors interacted is explored in the following section.

(b) Control Over Special Streams and Its Detrimental Effect

Interprovincial's delegation to Imperial of control over access to special crude streams had even more deleterious effects on competition. This delegation of authority permitted Imperial and other dominant shippers to use the distorted relative price structure to the disadvantage of small downstream refiners. The effect of delegating this power cannot be understood without a description of the pipeline operations of Interprovincial.

Normally, for reasons of cost, not every type of crude oil is shipped in separate batches. First, the greater the number of batches, the higher are the costs of break-out tankage.¹ Secondly, the more batches there are, the greater is the amount of contamination that results from the interfaces between crude types.² As a result, some crudes are batched and shipped separately as special streams³ while remaining crudes are blended into what are known as mixed blend streams.

1. Break-out tankage is required to compensate for differences in pumping rates into and out of a terminal.
2. The tail end of one crude type may mix to some degree with the head end of an adjacent crude type. The mixture is known as an interface of mixed crude (Document # 13031).⁴²³
3. Special streams are, of course, blended streams but of a more limited number of crude types.

In view of the Canadian price structure's inability to reflect market values accurately, there was an incentive for companies to remove the most valuable crudes from the mixed blend and to ship them as special streams. Similarly, there was equal reason to dump crudes that were overpriced into the mixed blend stream. As long as other oil firms purchased mixed blend, the company which dumped crude into the mixed blend stream could gain more at the production sector from this action than it would lose in the refining sector.

With equal access by all purchasers to special streams, the bias that developed in the Canadian price structure could not have been maintained. However, the pipeline operating procedures had the effect of limiting the number of special streams, or access to them, and of distributing the most 'valuable' of these unequally among refiners. In turn, this created an advantage for those companies which, because of their crude control and the pipeline operating procedures, had preferential access to special streams.

The process by which the major shippers developed an advantage for themselves appears to have begun in the early nineteen sixties. As early as 1963, Interprovincial noted that the major shippers were beginning to eliminate mixed blend and to ship special streams because of the price advantage that this gave them. Interprovincial described the evolution of this process:

"At this point in time [1962] it had been our opinion the demand for selective streams was based on crude oil characteristics and product yield. However, in 1963 a different pattern began to form. It began to develop, we believe, when Midale-Weyburn became a preferred stream and in short supply despite a rapid increase in the volumes being produced. A number of other circumstances developed which eventually led us to believe that the shippers were manipulating Alberta production to construct streams that could compete more effectively with the Saskatchewan production. In our opinion, an example of this was British American's insistence that Britamoil should be transported to Clarkson. Shell's ability to replace Mixed Blend with Lt. Sour Blend for St. Boniface refinery is another illustration."

(Document # 5132, June 25, 1964, Interprovincial)⁴²⁴

At the same time, the majors increased their control over the preferred crude types mentioned above — Saskatchewan medium. For instance, between 1963 and 1965, Imperial, Gulf, Shell, and Great Northern increased their control of medium Saskatchewan crude from a combined share of 66.5 per cent to 83.5 per cent (Document # 124310).⁴²⁵ Imperial readily understood the "resulting benefits accruing from the contractual control we hold on desirable crude types" (Document # 139117).⁴²⁶ As crude control increased, so did the majors' ability to create special streams and to leave those firms which had no choice but to use mixed blend with a cost disadvantage. Sun Oil stated that the cost of the mixed blend stream was "much too high for Sun to compete in the Sarnia product marketing area" (Document # 5131).⁴²⁷ When Sun Oil presented

estimates of the advantage of many of the special streams to Interprovincial (see Table 12), the pipeline company was to comment:

“This data clearly illustrates why the refiners who are in a position to do so are eliminating Mixed Blend crude (IOL, B.A.). The comparison also points up why the shippers are demanding additional and segregated streams, e.i. [sic] B.A. 12,000 B/D of Britamail, some Pembina, and Texaco now shipping 14,000 B/D of Redwater to Regent. All of these movements are displacing Mixed Blend. Soon the Mixed Blend stream will contain 33% of Federated P.L. crude, the balance being predominantly Redwater, Peace River, Leduc, Pembina, and miscellaneous smaller volumes. *The new proportions in the make-up of Mixed Blend raise the price to the disadvantage of certain less favoured shippers.*”

(Document # 5027, December 6, 1963, Interprovincial, emphasis added)⁴²⁸

It should be noted that based on the gravity/ sulphur characteristics of crude, the Federated stream mentioned in this excerpt was the highest cost crude stream received into the Interprovincial system at this time (Document # 5131).⁴²⁹ It has already been shown that the light crudes were generally overpriced relative to the heavier crudes. Thus those companies which controlled enough crude to put together special streams of lower gravity and lower cost began to do so. As a result, the average gravity of the mixed blend stream increased as it was left with a higher proportion of over-priced lighter crudes.¹ Interprovincial acknowledged this trend to remove the lower gravity, lower cost crudes:

“We have informally discussed the effects of withdrawing the controlled lower cost components from the Mixed Blend stream with the crude oil purchasers without receiving any really satisfactory answer. *It is our feeling each of the major integrated Canadian companies are [sic] aware that a number of refineries have been placed at an economic disadvantage but are not at this time able or willing to do much about it.*”

(Document # 5132, June 25, 1964, Interprovincial, emphasis added)⁴³⁰

As a result of this process, those who had to rely upon the mixed blend stream experienced an escalation in crude costs. Referring to Alberta mixed blend crude oil, Texaco noted that between 1961 and 1965, “the cost of the light Canadian crude oils has increased substantially more than the other Canadian crude oils” (Document # 6655).⁴³¹ Between 1961 and 1965, excluding posting changes and transportation tariff charges, the Alberta light mixed blend stream increased by 11 cents per barrel while Redwater increased by only 2 cents per barrel and South-East Saskatchewan decreased by 4 cents per barrel (Document # 6656).⁴³² The problem, which Texaco referred to, arose because of the

1. The reader should be aware of the distinction between “overpriced” and “expensive” as used here. The lighter crudes were both more “expensive” in that their prices were higher and “overpriced” in that their higher price did not reflect relative value.

increase in the growth of the proportion of light crude in the mixed blend stream (Document # 6656).⁴³³

The trend toward the creation of lower cost special streams continued. It was categorized by Interprovincial in 1967 as exhibiting "excessive growth" (Document # 12047).⁴³⁴ Consequently, the price of mixed blend crude continued upwards, as Interprovincial noted, due to "increased proportions of the higher priced crudes in the Mixed Blend stream" (Document # 5002).⁴³⁵ In 1968, Shell described the situation that a net purchaser without substantial crude control, such as itself, faced:

"During the past two to three years it has become increasingly difficult to obtain a low-cost, sweet, crude oil stream for our refineries connected to the Interprovincial pipeline system. This situation, which has resulted from increasing allowables in the higher sulphur producing oilfields in Alberta and also due to competitors forming specialty streams for use at own refineries, could worsen with the opening of the Chicago market."

(Document # 136096, October 28, 1968, Shell)⁴³⁶

Nothing was done to resolve the problem as Interprovincial noted:

"This [segregated stream policy] is a difficult and touchy subject with the shippers and several years ago we held meetings with the shippers at their request to look into particularly the quality of the numerous streams. While this review was for a different purpose, essentially to provide a better quality crude for the small shippers, the ultimate conclusion by the group was that little could be done to combine streams to produce composite ones of the desired quality and value that would satisfy the requirements of the majority of the refiners. *There was considerable bias on the part of the major shippers in the consideration of this matter and little satisfaction to non-producing shippers.*"

(Document # 12046-7, February 27, 1967, Interprovincial, emphasis added)⁴³⁷

The result was that the smaller, less crude sufficient refineries were subject, in Interprovincial's words, to an "economic disadvantage". Interprovincial was indirectly responsible for this result. Both its own policy on special streams and the decision-making process on mixed blends relegated substantial power to those companies which controlled crude. This power allowed them either to establish a refining cost advantage for themselves or to control the cost of others in such a way that these firms could not act independently.

Interprovincial's policy of delegating control of special streams to Imperial exemplifies its abdication of a role that could have prevented the anti-competitive abuses that developed. Other of its policies also gave those companies which controlled large volumes of crude a competitive advantage.

First, Interprovincial failed to adopt a fair and equitable policy on the minimum volume of crude that had to be shipped before a special stream could be created. The companies that controlled large volumes were best able to meet the minimum volume requirements. Of course, to the extent that these require-

ments were reasonable, then Interprovincial cannot be accused of favouring some companies at the expense of others;¹ however, Interprovincial applied its regulations in a discriminatory fashion. Shell believed that it had to assemble a special stream of at least 65,000 B/D to qualify for a separate batching.² (Document # 136065).⁴³⁹ Yet, Imperial was granted a stream where the volume varied between 5,000 B/D in 1971 and 12,766 B/D in 1968 (Document # 12391).⁴⁴⁰ Interprovincial documents admitted that “we should not be separately handling a stream of this size” (Document # 12101)⁴⁴¹ and:

“... our continued commitment to handling Sarnia Special through Edmonton and Superior tankage under current volumes, strains economic justification. A similar request from another Shipper would be quickly turned down, and it is difficult to see another Shipper similarly pressing such a position.”

(Document # 12391, April 3, 1973, Interprovincial)⁴⁴²

The policy regarding minimum volumes was thus applied in a discriminatory fashion so as to favour Imperial.

Secondly, Interprovincial apparently adopted a policy of “first-come, first-serve” on the use of break-out tankage (Documents # 5147, # 5143).^{443, 444} Interprovincial’s policy in this area created substantial entry barriers since break-out tankage was limited. The largest shippers tended to be the first to put together special streams and, therefore, were the first to be granted use of the tanks. While some tankage could be used for more than one special stream, Interprovincial followed the practice of requiring the newcomer to obtain the agreement of the company that obtained first use of the tankage. In this manner, control of crude became synonymous with control of access to special streams. There are a number of examples of the control over access to special streams that this gave Imperial, and to a lesser extent, Gulf.

In 1951, B.A. (Gulf) planned to tender Leduc crude to IPL for delivery to Superior. To do so, it would have been necessary to share special tankage with Imperial. IPL determined that the movement of this crude would negatively affect Imperial’s crude position (Document # 11985).⁴⁴⁵ It also calculated that Imperial’s position would be improved considerably by delaying the B.A. Leduc delivery by one month. The last paragraph of Interprovincial’s analysis illustrates the advantage of having control over production; for, Imperial could effectively delay B.A.’s delivery because of the extent of its control:

1. In the United States, the Interstate Commerce Commission addressed itself at an early date to the question of the fairness of minimum tenders. See *Brundred Bros. v. Prairie Pipe Line Co.*, 68 I.C.C. 458 (1922); *Reduced Pipe Line Rates and Gathering Charges*, 243 I.C.C. 115 (1940); and *Petroleum Rail Shippers’ Ass’n v. Alton & Southern Railroad*, 243 I.C.C. 589 (1941).

2. Document # 136096-8,⁴³⁸ mentions at least 70-80,000 barrels per day.

"This whole matter of British American deliveries of Leduc at Superior is one in which *Imperial Oil has a large interest and can also to a certain extent control*. Since British American must buy all their Leduc crude from Imperial, Imperial presumably is in a position to specify quantities and delivery dates that will least conflict with their own operations and requirements."

(Document # 11986, January 25, 1951, Interprovincial, emphasis added)⁴⁴⁶

Interprovincial contributed to the control developed by Imperial by directing companies desirous of obtaining special streams to Imperial for permission to share tankage that Interprovincial had assigned to Imperial. In 1962, Texaco Exploration contacted Interprovincial concerning the possibility of moving a special stream. The following excerpts indicate that Imperial's acquiescence was required by Interprovincial. This acquiescence was required because of Imperial's existing use of break-out tankage — tankage that belonged to IPL but that had been given to Imperial on a first-come, first-serve basis. Texaco Exploration wrote:

"We have had several discussions with your Mr. Heule [Vice-President and General Manager of IPL] concerning the possibility of moving a 'special type' refined product from Edmonton to Port Credit, Ontario. At his suggestion we have discussed this matter with Imperial Oil Limited to determine whether we would be able to use the tankage facilities now being used to move Imperial 'special type' from Edmonton to Sarnia. Imperial have advised us that this would be unsuitable. We therefore wish to explore other avenues of moving this material and would appreciate your advising us the breakout tankage presently in use at the various points in your system that would be required to make such a movement from Edmonton to Port Credit, and indicate the stream(s) that are passing through such tankage. This will enable us to contact other shippers to see if some arrangements can be made."

(Document # 5154, May 29, 1962, Interprovincial)⁴⁴⁷

The above letter written to IPL by Texex initiated the following IPL intracompany memorandum:

"It might be worth while for you to investigate Imperial's reasons for not agreeing to the movement of the Texaco special stream through the tankage now set aside for the movement of Imperial's special stream. Anything you can find out on this question would be appreciated."

(Document # 5153, May 31, 1962, Interprovincial)⁴⁴⁸

The findings of the investigation were then reported:

"From a conversation with Mr. Huffman of Imperial we understand that Texaco supplied Imperial with a sample of their proposed stream, and that after checking this sample Imperial came to the conclusion that it was not compatible with their special stream, and accordingly, gave a negative answer.

"Mr. Huffman mentioned that Imperial had given some thought to try and make some arrangements with Texaco whereby they might run Texaco's special stream in Sarnia, but this idea had been dropped and *was not* discussed with Texaco.

“Mr. Huffman was quite interested to know Texaco’s reaction to Imperial’s answer and wondered if we knew if they were exploring any alternate means of transporting this stream. It would appear that Imperial considered this request more in the nature of a ‘Trial Balloon’.”

(Document # 5152, June 7, 1962, Interprovincial)⁴⁴⁹

Texaco Exploration made another request for a special stream in February, 1963. This time it had difficulty in obtaining Gulf’s consent noting that “British American [Gulf] withheld its concurrence to the use of Smiley Coleville tankage for breakout purposes” (Document # 5151).⁴⁵⁰ Therefore Gulf had powers similar to those exercised by Imperial.

During the course of the conversations between Interprovincial and Texex, the problem of the number of special streams arose and the Texex representative agreed that he would attempt to negotiate with Imperial to determine “what steps could be taken to eliminate the number of selected streams proposed” (Document # 5151).⁴⁵¹ Another Interprovincial document (Document # 5131)⁴⁵² indicates that Texex did not acquire the Wizard Lake special stream that it desired; however, it was able to arrange with Imperial for access to an alternate special stream— Redwater:

“Presently, Texaco is satisfied with Redwater as a substitute for Wizard Lake crude and probably will remain so as long as Imperial Oil Limited will make Redwater production available.”

(Document # 5131, June 25, 1964, Interprovincial)⁴⁵³

While Texex was successful in working out arrangements with Imperial, other smaller companies were not always as fortunate. In 1963-64, Sun Oil attempted to obtain a special stream for itself since, as Interprovincial noted, with the withdrawal of special stream crudes from the mixed blend, the “new proportions in the make-up of Mixed Blend raised the price to the disadvantage of certain less favoured shippers” (Document # 5027).⁴⁵⁴ That Imperial and Gulf controlled access to special streams is highlighted by the fact that in the case of Sun Oil’s “problem”, Interprovincial took the matter up with both Imperial and British American (Document # 5129).⁴⁵⁵ The reaction of these two firms was negative. Interprovincial reported: “Both gentlemen had heard rumors of Sun’s problem and felt that it could be solved by Sun” (Document # 5129).⁴⁵⁶ Three years later, Interprovincial indicated the same problem remained: “There was considerable bias on the part of the major shippers in the consideration of this matter and little satisfaction to nonproducing shippers” (Document # 12047).⁴⁵⁷

The problems of access to special streams were, therefore, closely related to pipeline control. Interprovincial documents on the relationship between its first-come, first-serve use of tankage and the extent to which this favoured certain companies indicate that it was aware of the problem. In

discussing its policy of allocating tankage on a first-come, first-serve basis, Interprovincial noted:

"The weakness in this approach is that we may not end up providing uniform service to Shippers operating in the same distribution area such as Chicago. In any event I believe we should encourage Shippers to accept a specialty stream presently being transported or attempt a compromise with an existing specialty stream; but this of course may not mesh with the diverse crude control or economic positions of different refiners."

(Document # 5147, August 10, 1971, Interprovincial)⁴⁵⁸

Interprovincial chose to ignore the bias created by its own policy which favoured companies with large control positions. As is demonstrated in the next section, a similar lack of involvement in the determination of mixed blend streams also created entry barriers for smaller refiners.

It should be emphasized that firms larger than Sun Oil were also placed at a disadvantage by this policy. Shell attributed to Imperial's crude control the fact that it had "to accept less desirable refinery feedstock crudes from this company [Imperial], which results in a refining-cost disadvantage" (Document # 21513).⁴⁵⁹ Another of the large Ontario refiners — Texaco — made a similar observation:

"As a result of our inability to get the lower cost crudes, we are paying more for our crude oils than others in the area. Some companies have reduced their crude oil costs by control of their crude supplies."

(Document # 6655, September 10, 1965, Texaco)⁴⁶⁰

While the effects, then, of restricted access to crude streams coupled with the price system were used to create a crude-cost disadvantage for some refineries, the importance of this needs to be set within a broader context. Successful coordination of behaviour in an oligopoly requires the recognition of the mutual interdependence of its members. This may cause some to suggest that because this is a characteristic inherent in concentrated industries, these industries cannot be blamed for lack of competition. Or it may be used to suggest that, if mutual interdependence is the dominant problem that oligopolies face, then since the degree of mutuality is not generally high, the probability that they can operate to the detriment of the public for very long periods of time is not great.

This section indicates that, insofar as the domestic production sector is concerned, the Canadian petroleum industry did not rely upon some vague comprehension of mutual interdependence. With the power to grant access to special streams firmly in the hands of Imperial, both large and small firms alike were left with little or no leeway for independent action. Mutual interdependence was enhanced because of mutual dependence upon Imperial. Each firm in the industry relied to a greater or lesser extent upon Imperial's beneficence to maintain its crude costs at competitive levels. The appropriate model for

understanding industry behaviour in the production sector is not that of an oligopoly consisting of equals, but of an oligopoly with a leading firm that possessed an effective disciplinary tool — the control of its rivals' crude costs.

(c) *Control and Manipulation of Mixed Blend Streams*

The factors that influenced the decisions concerning the composition of the mixed blend stream were similar to those which determined what firms received special crude streams. Where a firm could withdraw crude types from the mixed blend stream to create a special stream, it could affect the composition and price of the mixed blend stream. Thus large purchasers who controlled the majority of crude oil had a direct influence on the price structure for the various crudes in the mixed blend as well as upon the relative amounts of different crudes that would be included in the mixed blend. In this regard as in others, Interprovincial's policy directly contributed to the predominance of Imperial and, to a lesser extent, Gulf.

Decisions on such matters as pricing and the composition of the mixed blend stream were not taken by pipelines, but by shippers' committees. For instance, in May 1973, the South Saskatchewan Pipe Line Company polled the shippers on its system as to whether they would permit some Montana crude to be shipped (Document # 139197).⁴⁶¹ Similarly, when Texaco objected to the equalized price on the Pembina Pipe Line, the equalizer — Gulf — polled the shippers on this system as to their wishes on the equalization formula. In the case of the Pembina system, Gulf indicated that before it would change the formula, it required a two-thirds majority in any vote, weighted by volume (Calgary Hearings, 1975).⁴⁶² Since each company's vote in these situations was a function of the percentage of crude it shipped, those companies with the greatest control (those which shipped the largest volume) carried the greatest weight. Interprovincial considered the matter of the decision-making process in the following excerpt:

"In discussing certain of the items on the agenda, it became evident that there is no effective democratic method of coming to a decision on a matter affecting all Shippers. Obviously on almost all issues, there will be some Shippers for and some Shippers against and, unless Interprovincial makes the decision after hearing the views of all Shippers, a method of voting must be set up. There are objections to a simple majority vote of all present as this provides small and larger refiners with the same strength. A more democratic method would be to poll all Shippers present, including companies they are agents for and then come to a decision based on percentage volume for and percentage volume against."

(Document # 11922, February 14, 1972, Interprovincial)⁴⁶³

In view of the emphasis on relative size that resulted from the adoption of this decision-making process, companies which possessed the majority of crude control were able to control the composition of the mixed blend stream.

For instance, in 1972, Shell approached Interprovincial Pipe Line about the possibility of shipping some Michigan crude east via Interprovincial. Shell noted that consent of the shippers of mixed blend would be required and that, in particular, "with a positive reaction from Imperial the rest of the Mixed Blend Sour Shippers could fall in line very quickly" (Document # 11875).⁴⁶⁴

Imperial's importance is highlighted in a second example. In 1974, Imperial informed Ashland that it would not renew its purchase contract for Bow River crude. Ashland noted that Imperial "also confirmed that Imperial would turn thumbs down on any proposal to include any part of the Bow River stream in the Mixed Blend. This, coupled with Gulf's refusal, effectively squashes this as a means of moving Bow River crude" (Document # 137930).⁴⁶⁵

This power effectively permitted Imperial and Gulf to exercise substantial control over the price other companies received for their crude — an important tool when it came to maintaining price discipline. The inclusion of a crude in the mixed blend stream guaranteed the producer the price established by the industry formula. The following example is another instance in which crude was not accepted into the mixed blend stream. Interprovincial, in discussing the problems that certain Saskatchewan crudes had experienced, noted:

"Up to the present time [1955] it has been the Company's policy to insist that new crudes tendered for shipment must be taken into a common stream. However, in this instance it has developed that there is no market for the East Saskatchewan crudes if they are blended into a common stream..."

(Document # 13071, August 3, 1955, Interprovincial)⁴⁶⁶

It is significant that all three of the crudes referred to in these examples were produced outside of Alberta's provincial prorationing scheme. Firms producing these crudes had the greatest incentive to expand production under the umbrella provided by prorationing. They, therefore, offered the greatest threat to the price structure. However, the existence of one east-west trunk pipeline and the control exercised by Imperial over the crude composition of the mixed blend stream, limited the ability of crudes outside the prorationing system to penetrate eastern markets. Restricting access to this stream would have had two effects. First, there would have been less incentive to develop these non-prorated fields because of the difficulty of marketing these streams; secondly, there would have been less incentive because of the lower price received for these crudes. A crude stream not included in the mixed blend stream was not guaranteed the formula price, and therefore, would be less likely to receive the higher prices that applied to mixed blend. The evidence presented in a previous section suggested that the price of the crudes from non-prorated areas was lower than for similar crudes subject to prorationing.

The power to decide which crudes to exclude from the mixed blend stream was also a power to decide which crudes to include. The major purchasers, therefore, had the leeway to divert crude from their own refineries

to those of their competitors by dumping it into the mixed blend stream. That Imperial used this tactic is evidenced by the following statement:

“Commencing late October [1967], 2.5 MB/D of the light components of the Bowbell Stream were injected into the Mixed Blend Stream to avoid deliveries to Sarnia.”

(Document # 139741, December 28, 1967, Imperial)⁴⁶⁷

Imperial’s ability to dump crudes that it did not want into the mixed blend stream created a problem for those refiners who had no alternative source of supply. As the percentage of each type of crude that entered the mixed blend stream changed, so too did the price and quality of the stream. The resulting fluctuations in crude quality would have imposed a cost penalty on refineries that were designed to run a certain type of crude for optimal production. Table 22 below traces the change in the price of Alberta Mixed Blend Sour crude over the period from late 1968 to early 1969. During this period of time, the price of the crude fluctuated by 6 cents per barrel.

TABLE 22
WEIGHTED AVERAGE PRICE OF ALBERTA MIXED BLEND SOUR
F.O.B. EDMONTON

<i>Period</i>		<i>Price (\$ per bbl.)</i>
August	1968	2.70
September	1968	2.75
October	1968	2.73
November	1968	2.74
December	1968	2.69
January	1969	2.73
February	1969	2.75

Source: Document #87580, Sun Oil⁴⁶⁸

Imperial’s combined ability to allocate special streams and to determine the composition of the mixed blend stream enabled it to make critical decisions affecting the competitiveness of the industry both up and downstream of the pipeline sector. The following example illustrates the nature of the power conferred on Imperial and the way in which it was exercised. Light Sour Blend was one of the “more desirable” crude streams (Document # 139706)⁴⁶⁹ or a “preferred crude in relative refinery value” (Document # 136044).⁴⁷⁰ Imperial’s control of this crude, along with Interprovincial’s apparent unconcern with Imperial’s behaviour, allowed Imperial to stockpile this crude in the pipeline system. Imperial was able to store this crude with other “surplus supplies of more desirable crude types. . . to ensure maximum utilization by Imperial. . . .

These moves sometimes resulted in Imperial having more than their allocated share of pipeline inventories" (Document # 139706).⁴⁷¹ In 1967, capacity shortages developed on the Interprovincial system. At this time, the shippers decided to favour the export market over Ontario refiners during this period. This meant that Ontario had to accept less than the amount that it required. During this time, Imperial was able to use its control to restrict supply to its competitors in eastern Canada but not to itself.

The following two quotations indicate how Imperial, during the shortage, diverted the desirable special streams away from its Ontario competitors:

"During Interprovincial's capacity shortage and Sarnia's numerous operating problems we sold 200MB Light Sour Blend to Murphy [Murphy had a refinery at Superior] to keep it away from Sarnia's competitors."

(Document # 139768, April 11, 1967, Imperial)⁴⁷²

"We sold 136 MB of Light Sour Blend to Murphy in December. This had the added advantage of keeping this crude out of competitive Ontario refineries."

(Document # 139784, April 27, 1967, Imperial)⁴⁷³

At the same time, Imperial noted that it was stockpiling crude in the pipeline system:

"Efforts were made to store surplus supplies of more desirable crude types such as Leduc Blend, Light Sour Blend, and condensate, to ensure maximum utilization by Imperial. SSS was also stored in Interprovincial's tankage and dead loops. These moves sometimes resulted in Imperial having more than their allocated share of pipeline inventories."

(Document # 139706, December 27, 1968, Imperial)⁴⁷⁴

Thus, in the face of capacity shortage, Imperial was better equipped to supply its own refineries and those of non-competitors which it chose to supply. It was able to divert crude from its competitors while it simultaneously continued to supply its own refineries. This permitted Imperial to establish an advantage at the expense of those companies which controlled less oil than they purchased. Indeed, documentation indicates that Imperial was able to come through this period of capacity constraints virtually unscathed. Interprovincial noted that:

"They [Imperial] confirmed that except for December 1966 and January 1967, Imperial have not so far been harmed by Interprovincial's inability to deliver the total demand for crude in Ontario in 1967."

(Document # 12011, October 17, 1967, Interprovincial)⁴⁷⁵

4. Conclusion

Crude control by Imperial permitted it to achieve a leading position in the industry which, when combined with Interprovincial's delegation of certain responsibilities, enabled Imperial to exert a dominant influence over industry

activities. Of particular importance was its access to detailed information on the crude slates, costs, and intentions of its competitors. It also had substantial influence over the crude costs of its competitors because of its control over access to special streams. It, therefore, had both the ability and the information required to discipline the rest of the industry. Possessing this power, it was able to devise a pricing mechanism that was used to set comparatively high crude prices.

Although the emphasis in this section has been on the leading firms, the role of other companies should not be disregarded. Admittedly, many events in the production sector may be viewed as a reflection of the operation of a monopoly model. Imperial, with between 40 and 50 per cent first purchase control of crude production in the nineteen sixties, and control of Interprovincial, had the power to set prices and to discipline the fringe group of firms.¹ However, maintenance of the industry's pricing formula depended upon more than the discretionary power of the leading firm. Other firms in the industry participated in the establishment of the pricing formula and related practices.

The extent of participation by these latter firms was documented by the examples of inter-firm discussions on prices and the pricing structure. Imperial may have controlled between 40 and 50 per cent of crude production but it still relied on industry support for the price structure that was established. That other firms besides Imperial were active participants in the maintenance of the pricing formula and in other coordinated activities may be inferred not only from discussions held between themselves and Imperial over the pricing formula but also from documentation which suggests that they withdrew their support when the benefits of the arrangement disappeared. The benefits arising from Imperial's coordinating role were a function of the excess capacity in the industry, a situation that existed until the early nineteen seventies. When the situation changed, Imperial's coordinating role was no longer readily accepted by the industry. Early in 1972, Gulf Oil objected to Imperial continuing to provide the coordinating role with regard to Interprovincial Pipe Line² (Document # 11933-4).⁴⁷⁷ Interprovincial noted that Gulf was opposed to Imperial continuing to receive information on Gulf's "current" moves. Gulf objected for

1. An alternative view might be that Imperial and Gulf, together controlling a majority of production, jointly made up a shared monopoly, but did not equally share power.

2. While Imperial coordinated movements of crude which connected with Interprovincial, it did not control the whole Canadian system. Interprovincial noted that Shell performed this function for Trans Mountain and that the information which was received was equally beneficial:

"Shell also admits that the information they received while coordinating the Trans Mountain System was of considerable advantage to their corporate objectives."

(Document # 12099, February 17, 1972, Interprovincial)⁴⁷⁶

“competitive reasons”, since Imperial was “getting considerable insight into their operation” (Document # 11934).⁴⁷⁸ This was the type of information that Imperial had listed as being extremely advantageous. With the change in market conditions, the other firms were no longer provided with any return benefit. In discussing whether Imperial should still be provided with the type of information that it had been given in the past, Interprovincial noted:

“There is no question that this information has given Imperial a competitive advantage in the past, but was justified by their overall service to the industry which they are no longer performing.”

(Document # 12099, February 17, 1972, Interprovincial)⁴⁷⁹

Therefore the industry changed its' position on the coordinating role of Imperial that it would tolerate. That this occurred just as the crude surplus was disappearing is significant. While Imperial's power was undoubtedly great, an evaluation of events in light of this evidence suggests that the industry's acquiescence permitted Imperial to make industry decisions for the good of all firms. The fact that by the early nineteen seventies, Imperial's control began to decrease markedly suggests that while barriers to entry to the purchasing sector existed, they were not impossible to overcome. The behaviour of the industry with regards to the coordinating role of Imperial is supportive of the contention that Imperial's dominance was also partially the result of a tacit understanding among members of the industry. It should also be pointed out that the behaviour of certain firms restricted price competition for condensate and heavy crude production in areas in which Imperial was not dominant. Together these facts show that other firms were active participants in the process by which competition was restricted.

In summary, the position of Imperial meant that it had the power to implement pricing decisions, and it had the ability to detect and control aberrant behaviour by the members of the oligopoly. In doing so it was supported by other members of the industry. For that school of oligopoly that stresses these as the major problems to be overcome before an oligopoly can exploit its market power, no further explanation of the success of the industry in maintaining a comparatively high level of crude prices is required. However, since much of the control that was so important to the implementation of the agreement was derived from the failures of the pipeline sector, a detailed examination of this area follows. The purpose of the following section is to assemble and summarize the evidence that has been adduced on the abuse of power that arose because of the concentration of ownership and control in the pipeline sector. Effective remedies to anti-competitive behaviour in the production sector can only be devised if the functioning of the pipeline sector and its critical role are fully appreciated.

G. *The Pipeline Sector*

1. *Introduction*

The pipeline sector, existing as it does as an interface between the production and the refining sectors played a critical role in the performance of both. Because of the extent of economies of scale in pipeline operations, there is a natural tendency for the structure of this sector to be highly concentrated. This, in turn, has prompted U.S. anti-trust authorities to focus special attention on this sector.

Allegations that there was a manipulation of the transportation system — albeit railways as well as pipelines — by Standard Oil in the late 19th century¹ culminated in the dismemberment of that firm as a result of U.S. anti-trust proceedings.² More recently, the transportation system received attention when an anti-trust consent decree limited the dividends that pipelines are permitted to pay their owners.³ The object of the decree was to prevent price discrimination via rebates distributed as dividends.⁴

These U.S. anti-trust initiatives have been directed at the prevention of abuse that might arise from monopoly power. Other actions have attempted to prevent monopolistic situations from arising by minimizing the opportunities for firms to coordinate behaviour. For example, the Interstate Commerce Commission (I.C.C.) prohibits jointly-owned pipelines from disseminating information on the activities of individual shippers that could be used to ensure parallel behaviour or that could discourage competitive behaviour for want of secrecy.⁵

In view of U.S. experience, it is appropriate to ask whether the pipeline sector of the Canadian industry possessed discretionary power and whether it was exercised so as to affect competition adversely.

The Canadian pipeline industry has been recognized within the petroleum industry as having concentration levels that are even greater than those in the United States, and therefore, as enjoying more discretionary power. For instance, the Economics Division of Imperial's Transportation and Supply Department argued that the American and Canadian pipeline sectors differed because of the fact "that Interprovincial have a virtual monopoly by Federal

1. For a history see Ida Torbell, *The History of the Standard Oil Company*, (New York, 1904)

2. *Standard Oil Company of New Jersey, et al. v. United States*, 173 U.S. (1909) and 221 U.S. (1911).

3. *United States v. Atlantic Refining Co.*, C.A. No. 14060 (D.D.C. Dec. 23, 1941).

4. See T.C. Spavins, "The Regulation of Oil Pipelines" in E.J. Mitchell, ed., *Oil Pipelines and Public Policy: Analysis of Proposals for Industry Reform and Reorganization* (American Enterprise Institute for Public Policy Research: Washington, D.C., 1979), p. 83.

5. U.S. Senate, Subcommittee on Antitrust and Monopoly, *The Petroleum Industry, Vertical Integration, Part 1*, 94th Congress, 1st Session (Washington, D.C.: 1975), pp. 260-62.

charter as opposed to the competitive structure in the United States” and “that the Canadian permit system has no counterpart in the United States” (Document # 91572).⁴⁸⁰ In commenting on the need for rate of return regulation, an Imperial document further elaborated on the effects of the Canadian permit system:

“In hindsight none of the three major pipe lines has truly experienced a great deal of risk particularly in view of the permit system which provides them with a virtual monopoly for Canadian crude deliveries.”

(Document # 95896, February 7, 1972, Imperial)⁴⁸¹

Imperial did not bear this view alone. Shell also felt there was little risk attached to Canadian pipeline operations because of their monopoly positions:

“Pipe lines normally have an almost guaranteed income over a considerably long period. This is inherent in their near-monopolistic position as carriers of oil from proven sources of supply to locations with a relatively secured demand.”

(Document # 21538, July, 1971, Shell)⁴⁸²

The petroleum industry also appreciated that the monopolistic structure of the pipeline industry had certain adverse effects on its performance. This was manifested in high pipeline profits. In a 1957 study of the Canadian pipeline industry, the explanation given by an Imperial official for the high level of Canadian pipeline profitability was:

“First of all, of course, is the monopolistic position of Major Canadian Lines. Once given a charter it seems improbable at the present that ‘in the national’ interest there will ever be any competition for them.

...

“Secondly, is the apparent lack of rate of return control.”

(Document # 127401-2, March 4, 5 & 6, 1957, Imperial)⁴⁸³

Subsequent performance of the pipeline sector between 1957 and 1970 indicates that high profits continued to be earned because of the apparent lack of regulation in this sector, at least with respect to the rate of return pipelines were allowed to earn.

The pipeline sector was also recognized as affecting competition in the production sector. Mobil noted that it was partially due to the concentrated nature of the pipeline system that there was less price competition at the production level in Canada as compared to the United States:

“Within Canada, the prices of Canadian crudes are not subject to the pressure of internal competition to the extent United States crudes are, for several reasons:

...

“Canada has only one trunkline system running from the West Coast to Toronto, Ontario. As crude flows east or west from Edmonton, the hub of Alberta’s gathering

network (see Exhibit I), refiners have little choice as to the type of crude they will take and the price they will pay.”

(Document # 18511, July, 1964, Mobil)⁴⁸⁴

Mobil also emphasized that there was less competition among gathering pipelines in Canada compared to the United States:

“Interprovincial Pipe Line (IPL) and Trans Mountain Pipe Line (TMPL) are the two trunkline carriers providing transport to market for Alberta production. These systems originate at Edmonton and receive production from producing area feeder lines such as Rainbow Pipe Line. Unlike the U.S. major producing areas, there is no duplication in feeder gathering systems serving Alberta producing areas.”

(Document # 20353, May 26, 1972, Mobil)⁴⁸⁵

These observations all suggest that the Canadian pipeline sector possessed substantial discretionary power. The way in which pipelines were used to affect the performance of both the production sector and the downstream refining sector is dealt with in succeeding sections.

2. The Relationship Between Pipeline Ownership and Crude Control

The first link between pipeline structure and the general performance of the industry can be found in the extent to which pipeline ownership engendered crude control. Owning or otherwise controlling the operations of a pipeline provided “a company with distinct advantages related to its crude oil purchases and its distribution of petroleum products” (Document # 21498).⁴⁸⁶

This was partially the result of the prorationing system that was adopted in Canada’s major producing region— Alberta. In the following passage, Shell noted that as a result of a guaranteed market being offered by prorationing, a buyer had to offer inducements other than price competition to acquire supply. The owner of a pipeline which served a production area could offer better service to crude producers who sold their supplies to that pipeline — or conversely, worse service if such a sale was not made:

“Since the days when Alberta production exceeded the demands of the local Prairie refineries, and the construction of the Interprovincial Pipe Line, Shell has had a demand for Alberta production for its Canadian refineries, and since the day Trans Mountain was completed, Shell has, as Agent for Shell Oil Company, had a demand for Alberta crude for export to Shell Oil Company’s Puget Sound Refinery. As the Province is well aware, Shell’s demands, although sizeable, were, with other demands, far less than the ability of the Province to produce, and as a result, the Province, through its Conservation Board, set up its allowable system whereby each producer shared equitably in the existing demands. As a result, Shell was unable to produce its own wells at maximum efficient rates and was required to supply a market for producers who had no demand. To put it another way, Shell’s demand provided markets for Mobil, Amoco, and other major and independent American producers, as well as non-integrated Canadian Companies. As a result, Shell was unable to use its demands for crude to secure supplies of crude in the usual commercial manner, since

it could not offer the inducement of a market, as all producers automatically shared in such a market. *Oil control then went by default to purchasers who were able to offer inducements other than markets, such as farmouts, ownership of pipelines, or other inducements so that today the control of oil bears no relationship to the demand for oil.*"

(Document # 26579, January 25, 1973, Shell, emphasis added)⁴⁸⁷

While the prorationing system may have contributed to the development of crude control, it provides only a partial explanation for the concentration of crude control in the hands of a few companies. Elsewhere in the prairie provinces, where prorationing was not commonly engaged in, the monopolistic position of the pipeline industry also contributed to crude control.

The relationship between the lack of pipeline competition and the concentration of crude control is exemplified in the mid-nineteen sixties by events surrounding a proposal to build a new pipeline into Saskatchewan from the United States. Saskatchewan crude was moved to Minnesota markets (the Great Northern and Northwestern refineries) via that section of the Interprovincial (IPL) pipeline which ran from Regina to Clearbrook. In 1960 and again in 1965, Great Northern and Northwestern complained that IPL's Regina to Clearbrook tariff rate was too high. (Document # 4159).⁴⁸⁸ These complaints were accompanied by threats to build a competing pipeline into southern Saskatchewan. On both occasions, Interprovincial yielded by lowering its tariffs. In 1960, there was a general tariff reduction. In 1966, the joint tariff (with South Saskatchewan and Minnesota Pipe Lines) was reduced by special agreement (Document # 4157).⁴⁸⁹ Ample leeway for tariff reductions existed since, in Interprovincial's words, "present charges [short haul tariff rates] do not reflect the efficiency of a large volume, large diameter pipe line system" (Document # 4161).⁴⁹⁰

In 1967, the Northern Pipe Line Company proposed the building of a new line from Regina to Clearbrook. The organizer and principal shareholder of the Northern Pipe Line Company was Great Northern Oil Company (Document # 3550).⁴⁹¹ The other major participant was Northwestern Refining Company. The objective of the proposal was not only to reduce tariff rates, but also to facilitate increased crude control by both these companies in southern Saskatchewan.

The proposed pipeline, if built, would have serviced both the Fosterton and south-east Saskatchewan areas; thus it would have competed with IPL for the shipment of Fosterton crude and with both IPL and Westspur pipelines for the shipment of south-east Saskatchewan crude (Document # 3550).⁴⁹² It offered a serious threat because the two principals in the Northern proposal had the major share of crude control in the Fosterton field. Great Northern controlled 75 per cent of the Fosterton production and Northwestern 10.5 per cent for a total of 85.5 per cent (Document # 91101).⁴⁹³ The purchasing position

of the St. Paul refineries meant that the Northern pipeline proposal was a viable project and if built would occasion a substantial loss in IPL volume. IPL estimated that it would lose 6.5 to 7 million dollars if the Northern pipeline was built (Documents # 3548, # 3552).^{494, 495}

Imperial's profitability, as the largest shareholder in Interprovincial, would have been adversely affected by the loss in revenue to Interprovincial occasioned by the construction of a competitive pipeline. But just as important was the loss in crude control that Imperial would have suffered:

"Imperial's interest in discouraging the Northern proposal goes beyond the substantial loss that Interprovincial would incur as a result of the lost revenue. In view of their potential position in Saskatchewan, they could also appreciably reduce our control of S.E. Saskatchewan light at a cost to us of 15-25¢/B."

(Document # 91514, March 2, 1967, Imperial, emphasis added)⁴⁹⁶

Imperial foresaw that it could lose control of substantial volumes of south-east Saskatchewan crude because the Northern pipeline proposed to charge lower tariffs than IPL — the implication being that the producers would obtain a higher wellhead netback on shipments via the Northern pipeline as opposed to IPL. The substantial pecuniary loss that Imperial would have suffered illustrates the extent to which crude control, supported by a monopolistic pipeline structure, contributed to a price system that did not properly reflect relative values of different crude types. For instance, Imperial estimated that if it lost control over Weyburn/Midale and had to replace it with an alternative crude, it would lose \$1.6 million (Document # 123964).⁴⁹⁷ On the other hand, if tariffs on IPL were reduced sufficiently to prevent the new pipeline from being built, IPL's revenues were envisioned to fall by between 1.0 and 2.0 million dollars. Imperial's share (32 per cent) of this reduction was less than the costs of losing control of Saskatchewan crude. Imperial's interests lay with reduced tariff rates.

As was previously recognized, Interprovincial's short haul tariffs on the Regina to Clearbrook section were so high that an alternative pipeline offered a credible threat. Both Interprovincial and Imperial recognized this:

"Based on the facts submitted Northern appears to have a viable project when compared to Interprovincial's present short haul tariffs."

(Document # 3548, March 21, 1967, Interprovincial)⁴⁹⁸

"... there is no doubt but that Northern have a sound proposal based on I.P.L.'s existing tariff."

(Document # 91508, March 21, 1967, Imperial)⁴⁹⁹

1. This document indicates that 60 per cent of the benefits of control were equal to \$1.0 million. Therefore, the net benefits were approximately equal to \$1.6 million.

As a result, IPL attempted to defeat the Northern pipeline proposal by offering a special concession on the tariff rates to Clearbrook. IPL sent a letter to Great Northern stating that IPL would reduce its tariffs to Clearbrook "in the event... that Northern Pipe Line Company does not build the proposed Regina to Clearbrook line" (Document # 3540).⁵⁰⁰ Great Northern, however, was not interested in accepting the reductions in tariff rates that were offered and indicated it still intended to build a competing line (Documents # 3525, # 3528).^{501, 502}

Interprovincial also approached the other principal behind the Northern proposal — Northwestern — with the same proposition. Northwestern agreed to dedicate their St. Paul tonnage to Interprovincial for three years in exchange for tariff cuts (Document # 91501).⁵⁰³ IPL explicitly stated its reason for offering the tariff concession in the following excerpt:

"... the prime purpose of the 3¢ and 4¢ concessions was to get Northwestern Refining Co. to withdraw from the Northern Pipe Line project and hopefully result in this project being abandoned..."

(Document # 5414, March 15, 1972, Interprovincial)⁵⁰⁴

Interprovincial also noted that Great Northern was reluctant to enter into a duplicate of the agreement between Interprovincial and Northwestern:

"We had hoped that once the tariff concessions agreed to with Northwestern were made known to Great Northern, *as has now been done by Northwestern*, we would also hear from Great Northern and Northern would withdraw their application entirely, but this has not happened. Northwestern has in fact received a letter from Great Northern to the effect that they intend to proceed alone."

(Document # 91501-2, October 10, 1967, Imperial, emphasis added)⁵⁰⁵

Throughout this process, Interprovincial was not acting by itself. Imperial played a key role in defeating the Northern pipeline proposal. The following excerpt from a letter written to IPL from an Imperial official outlines Imperial's actions:

"You may recall that prior to the development of the 'St. Paul concession' Great Northern were promoting a pipe line direct from Regina to Minneapolis/St. Paul. Through my contacts with Mr. Eugene Erickson of Northwestern Refining (now Ashland) meetings were arranged with Interprovincial whereby the joint tariff to St. Paul was developed. This resulted in the withdrawal of Northwestern support of Great Northern's project and the institution of the St. Paul concession."

(Document # 91588, March 1, 1972, Imperial)⁵⁰⁶

By maintaining the status quo, Imperial was able to protect its control position.

The tariff reduction that was adopted—"the St. Paul concession"—resulted in a price structure that discriminated between the short haul rates for movements to Minnesota and those on the rest of the Interprovincial system. This price discrimination continued throughout the decade. Price discrimination is a manifestation of the monopolistic conditions that existed in the production sector.

Imperial's reaction to the competitive threat offered by the Northern proposal illustrates the relationship between the structure of the pipeline sector and the control over production exercised by pipeline owners. This example shows that price discrimination was used to forestall entry into the pipeline sector so as to protect the first purchase control position of the pipeline owners. Pipeline ownership *per se* did not result in crude control. But in the situation that prevailed in Canada, with pipelines often having local monopolies, pipeline ownership served to engender crude control. Evidence from this set of events shows how monopoly at the pipeline sector affected not only the rate structure but also the wellhead price. Tariff rates may have been 4 to 5 cents per barrel too high on short haul routes in general (see later section) but control resulting from pipeline ownership permitted maintenance of some crude prices at 15 to 25 cents per barrel below their value. (Document # 91514).⁵⁰⁷

There are other examples that illustrate how pipeline ownership facilitated the development of crude control. In 1965, discussions for the location of the southern terminus of the Rainbow pipeline focused on two alternatives — on an immediate tie-in to the Imperial controlled Mitsue-Nipisi system (Document # 19962-3)⁵⁰⁸ or the delayed construction of a direct line to Edmonton. The latter alternative was regarded by Mobil as offering the opportunity of preventing Imperial from extending its control:

"A one year delay to allow the buildup of reserves and to provide firm support for the full Rainbow to Edmonton system, will be in the best interests of Banff-Aquitaine since a full pipeline system directly to the market can be constructed at one time. Moreover, Banff-Aquitaine will then be able to maintain an interest in the pipeline that is proportional to our interest in the producing area. Based on our knowledge of Imperial's major marketing position in Alberta, and Imperial's well known record of attempts to control Alberta production in its own favour, it is mandatory that we do everything possible to maintain Banff-Aquitaine control on Rainbow production."

(Document # 19964, August, 1965, Mobil)⁵⁰⁹

Maintaining ownership in a system and not connecting to an Imperial-controlled pipeline were seen as essential if Imperial was to be prevented from extending its control over crude.

The relationship between control, ownership, and the monopolistic nature of the pipeline system is further illustrated by events surrounding the competition between the Rainbow Pipe Line and the Peace River Oil Pipe Line Co. Ltd. in the Zama Lake area of Alberta. Rainbow was the first to build to the Rainbow producing area, but by 1967-68 Peace River had completed its Zama Lake extension into this area (see accompanying map, Document # 129248).⁵¹⁰ The following document suggests that one reason for the competitive extension of the Peace River pipeline into Zama was the unreasonably high tariff rate charged to this area by the Rainbow Pipe Line:



(Reproduction of Document # 129248
'Map' added)

“Rainbow Pipe Line has set an initial tariff of 89¢ per barrel from Zama Lake to Edmonton. This tariff plus sulphur penalties leaves a field netback of about \$1.55 per barrel. *The Rainbow Pipe Line owners have set a 35¢ tariff on the Zama Lake extension and it appears that they are loading this portion of the pipeline with an unreasonably high charge.* Unless reasonable adjustments are made, Zama Lake producers will have to seriously consider their own pipeline outlet — - presumably to connect with Peach [sic] River at Sturgeon Lake. It is too early to come up with any definite proposals but I am sure that the other major Zama producers, Dome and Canadian Superior, would welcome the opportunity to participate in such a project.”

(Document # 16472, May 19, 1967, Hudson's Bay Oil and Gas, emphasis added)⁵¹¹

The price discrimination that developed in this area may be explained by the fact that ownership in the Rainbow Pipe Line did not correspond to that in the Zama field. All the production in the Zama field was owned either by companies with Peace River ownership, or by companies not affiliated with either pipeline (Document # 19799).⁵¹² Therefore it was in the interests of the Rainbow pipeline owners to set as high a tariff rate as possible for the Zama Lake section.

With the construction of the Zama extension of Peace River Pipe Line, the Rainbow system lost its monopoly in this area. It is, therefore, significant that the concentration of control differed in this area in contrast to others served by the Rainbow pipeline alone. For instance, in 1966 before the Peace River extension was completed, Imperial noted that it had almost 100 per cent control along the Rainbow and affiliated pipeline systems:

“We have been able to purchase essentially all the Mitsue, Nipisi and Rainbow production. The only exception is B.A.'s own Mitsue crude and 50 per cent of one Rainbow well produced by Pan American, which is purchased by B.A. B.A. resell to us and we remain the only shipper in the systems.”

(Document # 139792, July 13, 1966, Imperial)⁵¹³

However, the situation differed in Zama Lake where Rainbow faced competition due to the entry of Peace River Pipe Line. There Imperial had less success in achieving complete control:

“We have continued our efforts to obtain a major purchase position in the Rainbow and North Zama areas. We still control essentially 100 per cent of the Rainbow production but, to date, have only one North Zama producer (Dome) under contract. Hudson's Bay Oil decided to sell their production to B.A. since this is a joint operation. Other producers have refused to sign contracts with any purchaser and are waiting for the best price quotation.”

(Document # 139768, April 11, 1967, Imperial)⁵¹⁴

“We have continued our efforts to obtain a major purchase position in the Rainbow and North Zama areas. We still control most of the Rainbow crude and more than 50 per cent of the North Zama.”

(Document # 139753, October 4, 1967, Imperial)⁵¹⁵

As with the example of the Northern pipeline proposal in Saskatchewan, this indicates how pipeline competition tended to diffuse control. That the pipeline sector was so highly concentrated provides one explanation for the high levels of concentration of crude control that developed in the Canadian production sector.

Pipeline ownership was not the only method of obtaining access to preferred crude streams or of receiving lower tariff rates. Those who could offer a credible threat of entry were occasionally able to reap one or another of the aforementioned competitive advantages. The case of the Northern pipeline proposal outlined above indicates that tariff concessions could be won. Shell provides another example of the benefits of being able to mount a successful entry threat:

"In 1965, Shell Canada was an active 21.6% owner in Hydrocarbons Pipeline Ltd., which proposed to transport natural gas liquids from the Harmattan field in Southwestern Alberta to the Vancouver area of British Columbia via pipe line. The planned route would allow access to several Shell-producing areas including Waterton, and potentially service the Anacortes Refinery area. When the National Energy Board turned down the application on the grounds of questionable markets and financing, Shell attempted to obtain a controlling interest in the company in order to have a more influential impact on the future use of the company and its related charter. When this effort was blocked, Shell sold its 21.6% interest for \$21,000 losing \$39,000 on the sale. *It should be noted, however, that the threat of this pipe line was instrumental in securing favourable prices in long-term contracts for the sale of Shell's condensate to an owner of an existing pipe line, and for the purchase of crudes by Shell in Southern Alberta.* A price increase of 26.7¢/barrel for the sale of Waterton area condensate by Shell represented an undiscounted before tax income increase of \$1.24 million annually during the 4-year contract term to 1971. *The strong negotiating position also enabled Shell to obtain higher quality crudes resulting in a further undiscounted before tax increase in income of \$550,000 annually to 1971.* A commercial operation of a Hydrocarbons natural gas pipe line never did develop."

(Document # 21509, July, 1971, Shell, emphasis added)⁵¹⁶

In this case, Shell was able to extract a higher wellhead price for some of its production (equivalent to a tariff decrease) and access to crude that was more valuable than that which it normally could have acquired.

Each of the examples referred to above show how pipeline ownership facilitated crude control. Ownership of facilities ancillary to the pipeline transportation system also provided a means of control. Control of batteries and natural gas plants, as has already been pointed out, offered an alternative tool for control. Shell noted that being the operator of a battery provided a means of gaining control. Texex worried that if Imperial gained control of transportation systems northwest of Edmonton by causing the demise of Peace River Pipe Line, then, "future gas sales from this area at competitive prices will probably not materialize" (Document # 54989).⁵¹⁷ In essence, the advantage of owning these ancillary facilities stemmed from the same factors that resulted in pipeline

monopolies. Economies of scale dictate that batteries and gas plants serving one area not normally be duplicated. As with pipelines, this meant that firms that controlled these facilities had a *quid pro quo* to offer or to threaten in return for purchase contracts.

The effect of crude control has already been developed at great length in a preceding section. It extended upstream to crude production where ownership of pipelines served as a barrier to entry. It was also felt downstream at the refining sector where, because crude control led to a price system not reflective of relative values and because pipeline ownership permitted operating rules to be adopted that favoured the largest companies, these companies were able to control access to cheaper (more valuable) crude streams. In this fashion, pipeline control adversely affected performance at both levels.

3. Pipelines and Coordination

The pipeline sector affected the performance of the petroleum industry in two ways. First, the monopolistic nature of the pipeline sector engendered a similar structure in other sectors. As noted earlier, those who controlled the pipelines potentially could create a cost advantage for themselves. Pipelines could be used to obtain crude control and to limit access to special streams. Another benefit — generally accruing specifically to the owner of a pipeline — was the ability to discriminate in the allocation of deliveries during supply shortages. Mobil Oil, for instance, in a letter to Trans Mountain Pipe Line, noted that in 1972, Trans Mountain allocated capacity to the benefit of the owners at the expense of non-owners:

“I appreciated the opportunity to visit with you yesterday. Due to the great number of subjects we wanted to discuss, I failed to mention to you our concern over the Trans Mountain Pipe Line proration policy that has been issued. This policy clearly benefits owners — Arco and Shell — as well as B.C. refiners at the expense of non-owners such as Texaco and Mobil.”

(Document # 20361, May 11, 1972, Mobil)⁵¹⁸

As noted earlier, the operations of Interprovincial also were biased in favour of its largest shareholder — Imperial. Imperial was allowed to store excessive inventories in Interprovincial prior to a capacity shortage and, thereby, avoided much of the effects of the shortage felt by other refiners.

Pipeline ownership also provided a source of information on the activities of industry members. Sometimes this type of information was provided only to the industry leader, thereby, improving the control that it possessed. In other cases, the benefits were more widespread in that they gave several companies equal access to information. In the latter case, the pipeline's behaviour would have aided firms in harmonizing their activities.

The relationship between Imperial and Interprovincial Pipe Line, in particular, exemplifies the way in which information permitted one company to achieve a competitive advantage. Imperial recounted just how valuable a source of information pipelines were:

“Through our normal contacts with gathering and trunk lines, information is obtainable on crude quality and the volumes of each type run by all refineries.

...

“Historically Imperial has been the prime coordinator of trunk pipeline movements and this enables us to determine both short and long term requirements for crude types. Very often competitors will tell us the reason for changes in types required.

“Again, through our affiliation with trunk pipelines we are able to determine, on a short term basis, competitor requirements for certain crude types. e.g. Shell-Winnipeg have requested that two 40 MB batches of Pembina crude be delivered during March 1964.”

(Document # 139123-4, February 21, 1964, Imperial)⁵¹⁹

Combined with additional information garnered from other industry contacts, such as shippers' meetings, Imperial was able to collect detailed data on the cost of crude used at competitors' refineries. Imperial recounted the type of intelligence information garnered from these activities:

“Any information obtained by us, either by direct contact or during the various shippers' meetings etc., is passed to other departments of the company who may be interested in competitor activities. Examples of these are:

- “1. Mr. T.J. Nunn is advised on a regular basis of the type and volume of crude run by all the Prairie refineries.
- “2. Marketing and Manufacturing, through the Saskatchewan Field Coordinating Committee are advised each month of the type and volume of crude required by Saskatchewan refineries.
- “3. Manitoba Marketing and Manufacturing were advised of Shell's March Pembina requirement.”

(Document # 139124, February 21, 1964, Imperial)⁵²⁰

Thus shippers' meetings served as a valuable source of information on competitors' activities. At these meetings, companies revealed their short term plans to others by indicating their intentions on their future crude acquisitions. The degree of information that was circulated would have served to maintain the type of trust among firms that is so essential for oligopolistic coordination.

The pipeline sector provided more than just information on short term crude acquisition plans. It also disseminated information on competitors' longer term activities. For instance, Trans Mountain Pipe Line distributed detailed

five-year shipping forecasts to major shippers (Document # 92170-2).⁵²¹ The information contained a breakdown, refinery by refinery, of forecast deliveries.

It is significant that similar activity was banned in the United States. Recognizing that the success of oligopolistic coordination is dependent upon the dissemination of detailed information relating to the intentions of each member, the Interstate Commerce Commission required that pipelines not operate in a fashion that would disseminate the above-noted information to the industry.¹ By contrast, the Canadian petroleum industry provided member firms with detailed information on one another.

The above examples describe several aspects of the nature of the discretionary power conferred upon individual firms or the coordinating function that pipelines played. The ways in which this discretionary power was used can be observed in three areas: the use of pipelines to limit production when price competition threatened to emerge; the use of price discrimination by pipelines so as to prevent crude competition or, to take advantage of the differing elasticities of demand (the existence of local monopoly power), and, the use of pipeline tariff policy to create an entry barrier. Each of these three areas will be discussed individually.

4. *Prorationing*

As noted earlier, governmental restrictions on production did not extend to all crude types. In particular, heavy crudes were not subject to market prorationing by governmental authorities. Instead, the industry used the pipelines that served the heavy crude fields to accomplish the same purpose. When demand fell below supply, the pipeline served to provide the focus for agreements among shippers to coordinate reductions in production. As a result, the individual incentive to reduce prices, which occurs normally in these circumstances, was destroyed.

The role South Saskatchewan Pipe Line played in prorationing Foster-ton production to market demand has been outlined in a previous section. Initially, with Great Northern possessing a monopsony in crude purchasing along the system, the pipeline played no formal role. However, by the late nineteen sixties, there were a number of crude shippers and the pipeline management and the shippers, agreed to prorationing when supply exceeded demand.

The other two major pipelines serving heavy crude areas were Bow River Pipelines Ltd. and Husky Pipeline Ltd. In both cases the pipeline used its discretionary power to regulate the flow of crude when market conditions were weak.

1. U.S. Senate, Subcommittee on Antitrust and Monopoly, *The Petroleum Industry* (1975), pp. 260-62.

The Bow River pipeline served southern Alberta and linked that area to the Interprovincial pipeline near Hardisty. Until 1973, a Koch company shared ownership with a Canadian Pacific company.¹ After that date ownership was divided equally between Koch Industries Inc. and Koch Refining Company. Bow River blended crudes with an asphaltic base to produce a blend which was classified as medium gravity sour, high asphaltic crude (Bow River Return).⁵²² This was commonly referred to as the Bow River 'A' Stream. When demand for this stream fell below potential production, the Bow River pipeline prorated producers along the system:

"Bow River Pipe Lines Ltd. devised the prorationing formula and established the ground rules for its implementation in conjunction with the producers using the Bow River pipe line system as the Alberta Energy Resources Conservation Board preferred not to be involved in heavy crude oil prorationing."

(Pan Canadian, October 29, 1976, Return)⁵²³

The fact that Bow River was acting quite independently of the Alberta regulatory authorities was confirmed by Koch:

"No responsibility for prorationing was accepted by the Commission."

(Bow River, October 25, 1976, Return)⁵²⁴

The actual decision to implement prorationing was made by the president of Bow River Pipe Lines. It must be emphasized that prorationing was used not just to handle emergency breakdowns in the pipeline system, but also during prolonged periods (several months) of market depression.

Husky Pipeline was a wholly owned subsidiary of Husky Oil. It served the Lloydminster area of Alberta and parts of nearby Saskatchewan and connected to Interprovincial Pipe Line at Hardisty. Husky Oil reported that, while it did not own 100 per cent of production, it enjoyed 100 per cent of first purchase control along the Saskatchewan and Wainwright gathering lines. As a result, Husky Oil was the only shipper of crude oil in the pipeline. Husky Oil's position as sole shipper in the pipeline enabled it to limit production itself during periods of weak markets:

"During some periods when there was a reduced market for heavy crude oil, Husky Oil Ltd. reduced the volume of crude taken from its own wells and continued to purchase available crude from other producers. During some other periods when these market conditions prevailed, Husky Oil Ltd. reduced its purchases from its own wells and other producers on a pro rata basis. Husky Oil Ltd. prorated in these instances in proportion to normal production, notifying the vendors of its action. No meetings

1. Between 1969 and 1973, Canadian Pacific Investments held 50 per cent ownership; prior to that Canadian Pacific Oil and Gas held a 50 per cent share in Bow River Pipe Line. From 1964 to July 1, 1972, the other 50 per cent was owned by Great Northern Oil Company. The latter company was owned 98.9 per cent by Koch Refining Co. as of 1975.

were held to discuss and implement prorationing. The right to prorate was claimed under the terms of the crude oil purchase agreements.”

(Husky Pipeline Return, original submission)⁵²⁵

One other pipeline system also engaged in a policy of privately organizing prorationing. Producers-Westspur consisted of a set of pipelines located primarily in south-east Saskatchewan that, prior to its purchase in 1971 by Dome Petroleum, was owned by a large number of companies¹. It served fields producing light and medium crudes. During the nineteen sixties and early nineteen seventies Producers-Westspur adopted a prorationing system whenever nominations for south-east Saskatchewan crude for delivery to Interprovincial were forecast to be less than receipts along the pipeline system. The crude oil movement supervisor prepared a shipper allocation schedule and imposed reduced deliveries along the system (Producers- Westspur Return).⁵²⁶

Thus, the major pipelines serving areas where provincial governments did not have prorationing schemes — Bow River, Husky, South Saskatchewan, Producers-Westspur — operated their own schemes to restrict production when supply exceeded demand at the prevailing price. The ability of the pipeline sector to restrict production during periods of oversupply was a manifestation of the power inherent in this sector. In some cases, this power was vested in one firm due to its control position. In other situations where control was divided among more than one firm, the pipeline became the agent which enforced the production restrictions. In both cases, discretionary power was derived from pipeline control.

It should be emphasized that a reduction in production in the face of weak market demand is not undesirable *per se*. However, previously quoted documents indicate that the members of the petroleum industry attempted to avoid price competition. Therefore the behaviour of the pipeline firms that has been outlined above takes on added significance. Equally important, the nature of the solution adopted by the pipeline shipper or shippers, in that it tended to force the same solution on every producer, was coercive. The alternative — that of prices clearing the market — was not available. As such, the behaviour of these pipeline companies interfered with the market process.

5. Price Discrimination

Price discrimination is a manifestation of monopoly power. Evidence that the pipeline sector engaged in this practice strengthens the argument that substantial discretionary power was wielded by this sector. Of equal importance,

1. Canadian Fina, Canadian Grid Oil, Canadian Superior Oil, Central Del-Rio Oils, Dome Petroleum, Gulf Oil Canada, Hudson's Bay Oil and Gas, Imperial, Mobil Oil Canada, Scurry Rainbow, Shell Canada, Sun Oil, Teck Corporation, and Union Oil Canada.

the evidence shows that this power was utilized to suppress competition within the production sector of the petroleum industry.

Pipeline systems had the greatest incentive to charge higher prices on those segments of their line that faced no competition from other pipelines or on those segments where the owners accounted for little or no production. The Zama Lake area of Alberta provides an example of both practices. Initially, only Rainbow Pipe Line served the area. Production in the area was entirely attributable to non-owners of Rainbow (Document # 19799).⁵²⁷ In 1967, Hudson's Bay observed that the tariffs charged to the area were higher than elsewhere on the Rainbow system:

"The Rainbow Pipe Line owners have set a 35¢ tariff on the Zama Lake extension and it appears that they are loading this portion of the pipeline with an unreasonably high charge. Unless reasonable adjustments are made, Zama Lake producers will have to seriously consider their own pipeline outlet — presumably to connect with Peach [sic] River..."

(Document # 16472, May 19, 1967, Hudson's Bay Oil and Gas, emphasis added)⁵²⁸

Eventually, Peace River built an extension to this area.

In 1968, negotiations took place between Rainbow and Mitsue concerning the proposed amalgamation of the two systems under Rainbow ownership. During the ensuing discussions of guarantees that Mitsue tariffs would not be raised, it was pointed out that, price discrimination existed with regards to the Zama Lake area:

He pointed out that the tariffs in the Zama area were now disproportionate to those from areas further south."

(Document # 91457, October 16, 1968, Imperial, emphasis added)⁵²⁹

Rainbow was not the only pipeline to engage in price discrimination. Peace River's extension into Zama Lake failed to capture the traffic of any producers other than those who had ownership in Peace River (Documents # 18862, # 15154).^{530, 531} As a result, this section had to be supported by higher tariffs elsewhere:

"Several fields connected to PROPL's [Peace River] N.E. system have trunk tariffs that are set below PROPL's desired tariff structure level due to competition by Rainbow pipeline (Red Earth, Nipisi, Utikama and West Nipisi). It has been determined that shippers in fields not affected by competition are paying tariffs that are subsidizing the competitive field trunk line section. It has also been determined that the short haul shipper is subsidizing the competitive trunk line section more than the long haul shipper."

(Document # 22667, August 27, 1973, Shell)⁵³²

However, it is not the existence of price discrimination as much as the use to which it was put that is of interest. Control of pipelines meant that tariffs could be manipulated in such a way as to develop crude control. An example is

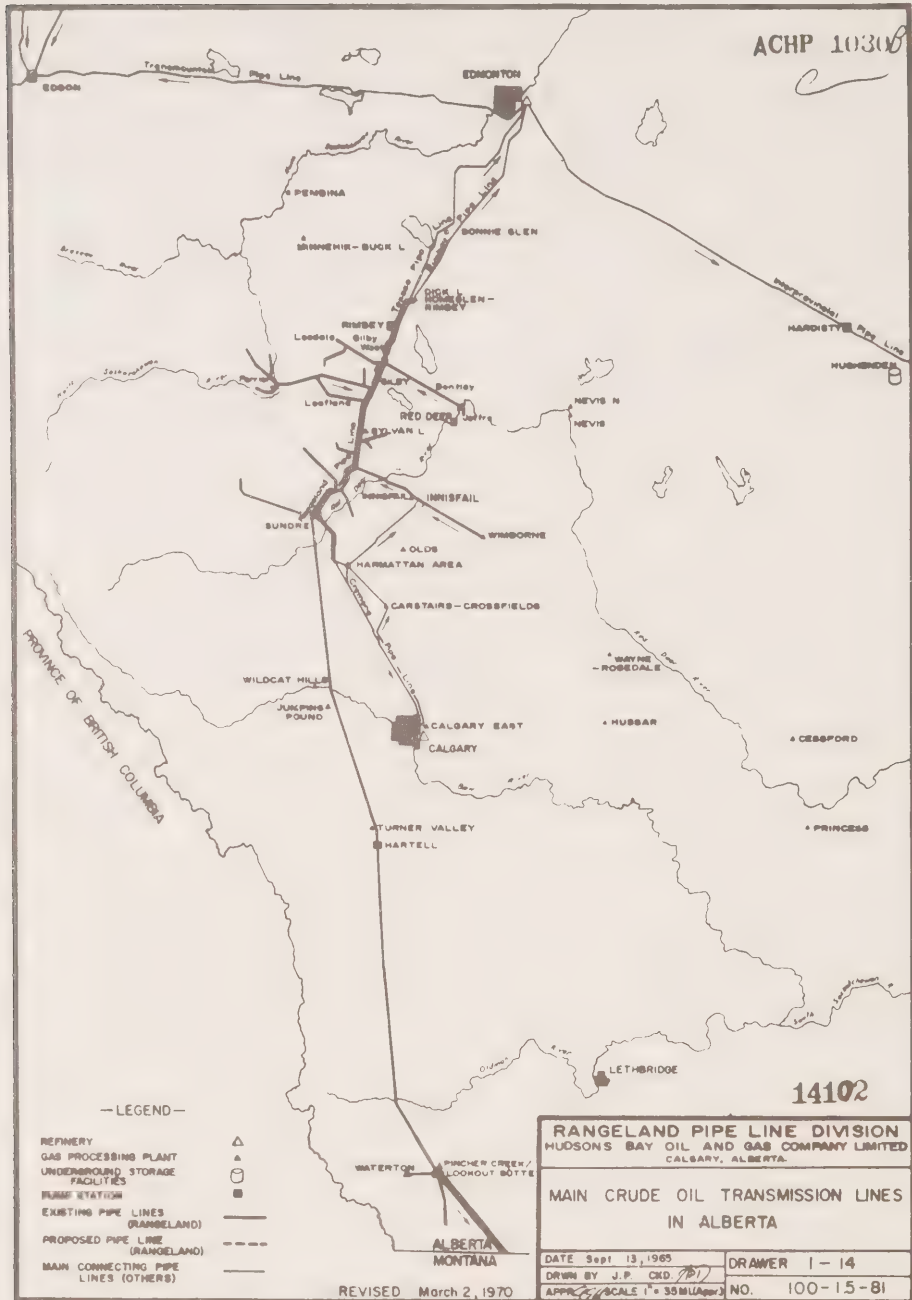
provided by Hudson's Bay Oil and Gas Company's consideration of the establishment of a tariff structure on Rangeland Pipe Line that would have gained it control of additional crude oil. Rangeland was a pipeline owned 100 per cent by Hudson's Bay Oil and Gas. It was located in southwestern Alberta and ran from the Montana border to a connection with Texaco Exploration (see figures 4 and 5). Crude flowed both north and south in different parts of the system. There were two pricing points on the Rangeland system — Rimbey and Sundre.

The Sundre pricing point was established on June 1, 1969, as a result of Gulf's and Imperial's plans to shut down their Calgary refineries. When these refineries ceased to operate, crude from the Cremona and Turner Valley pipelines, which supplied Calgary, was available for export to the United States. Hudson's Bay noted that the Sundre pricing point was established "to protect our long-range supply and pipeline position and to standardize the pricing base for all crudes which currently, or may in the future, move to Sundre for delivery to the [U.S.] Rocky Mountain area" (Document # 14116).⁵³³ The major pricing point for crude moving north along the Rangeland system was Edmonton. The base prices established at Rimbey and Sundre, were a function of the Edmonton-Rimbey and Edmonton-Sundre tariffs.

Hudson's Bay's plans for development of control indicate the extent of discretionary power enjoyed by pipelines over their rates and provide an example of how rate discrimination can be used to develop control. In 1969 the price of crude at Rimbey was \$2.90 per barrel and at Sundre was \$2.83 per barrel, the price at Rimbey being higher because Rimbey is closer to Edmonton, the major base pricing point in Alberta. Hudson's Bay Oil and Gas (HBOG) forecast an increase in demand for crude in the United States and therefore, anticipated "the necessity of relying on crudes off of the Texaco pipeline system at Rimbey" (Document # 15923).⁵³⁴ But in order to attract this crude for southern movement HBOG foresaw that it would need to increase the price it was paying for crude moving from Rimbey to Sundre by 7 cents per barrel — so that producers would receive the same wellhead price whether their crude moved north to Edmonton, or south to the U.S. via Sundre; otherwise, the potential supply would be "lost to other systems delivering to Edmonton" (Document # 15923).⁵³⁵ If the wellhead price was increased by 7 cents per barrel, HBOG noted that Rangeland's tariff to Rimbey "would of necessity have to be reduced by 7¢ per barrel to maintain the correct price relationship at Edmonton" because "some crude [possibly off the Cremona system] would continue moving to Edmonton on a spot basis" (Document # 15923).⁵³⁶

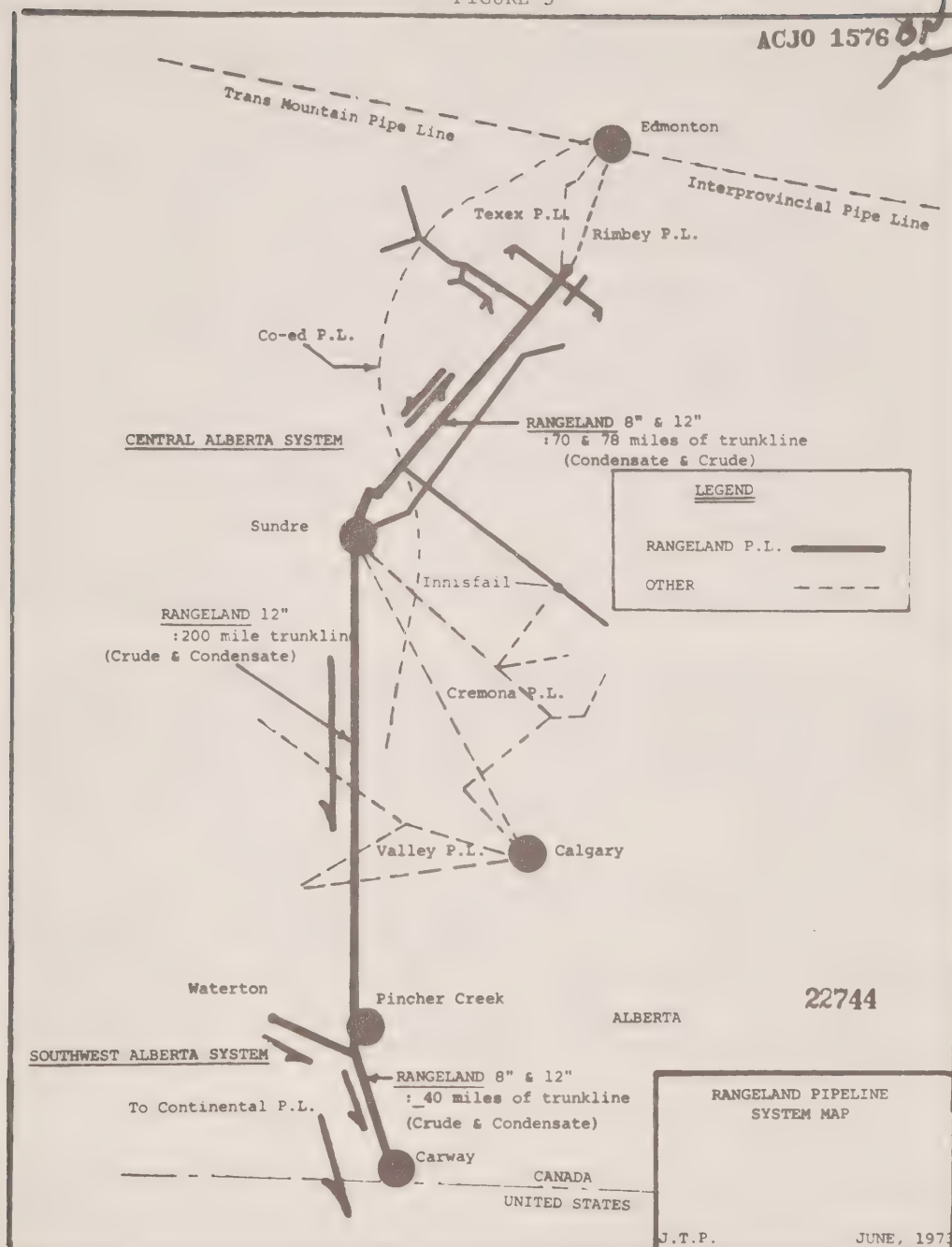
The situation described above is of interest because HBOG noted that the changes in tariffs and wellhead prices would give it and Continental (Continental owned approximately 53 per cent of HBOG as of July 1, 1975) additional control over crude:

FIGURE 4



(Reproduction of Document # 14102
'Figure 4' added)

FIGURE 5



(Reproduction of Document # 22744
'Figure 5' added)

"In the immediate future however, we propose approaching companies such as Amerada (Ferrier) and Imperial (Joffre) to suggest to them that, when the probable easing of U.S. import controls should be confirmed, we would expect to increase their netbacks by 7¢ per barrel, and in this way hope to obtain the commitment of this material (some 6,800 BPD) to the Rangeland system and to *HBOG — Continental control*."

(Document # 15924, November 19, 1969, Hudson's Bay Oil and Gas, emphasis added)⁵³⁷

In conjunction with the Sundre-Edmonton and wellhead price changes discussed above, HBOG proposed to equate the Rimbey-Billings and Sundre-Billings by establishing Rangeland-Continental joint tariffs in order to:

"... remove the pressure on crude prices at Sundre which would otherwise be caused by higher-priced Rimbey material passing by, and hopefully stabilize the Sundre price at this level, rather than risk the danger of upward pressure towards the present level of Rimbey material at Sundre (some 20¢ above Sundre)."

(Document # 15924, November 19, 1969, Hudson's Bay Oil and Gas)⁵³⁸

There are additional examples where price discrimination was used to limit price competition. As noted earlier, the relationship between U.S. and Canadian prices was such that there was a period when Fosterton/Dollard crudes would have been less expensive in Saskatchewan markets than Alberta crudes. Mobil explained how the pipeline tariff structure⁵³⁹ was used to prevent this:

"*Fosterton/Dollard* — Initially (1954), the area had a flat price posting based on reference crudes from Wyoming laid-down at St. Paul, Minn. The flat price had a disadvantage in that Fosterton/Dollard crudes could be delivered in Moose Jaw and Regina at a lower cost than Alberta crudes under the basic pricing structure. Tariff differentiation by S.S.P.L. involving 'local' and 'through' tariffs sought to prevent this from happening."

(Document # 18018, December, 1961, Mobil)⁵³⁹

Thus, the South Saskatchewan Pipe Line used high short haul relative to long haul tariffs to make Fosterton/Dollard less competitive in Prairie markets. Mobil also commented that others appreciated the existence of this practice:

"Canadian Husky, for example has long maintained that the relative price from Fosterton to Moose Jaw (where they have a refinery) is unreasonably high having relation to the through tariff."

(Document # 17036, May 29, 1961, Mobil)⁵⁴⁰

This was not the only case where short haul tariffs were kept high to the disadvantage of Prairie refineries. As will be documented in a later section on the profitability of Interprovincial Pipe Line, Prairie short haul tariff rates were kept at comparatively high levels throughout the nineteen sixties and early nineteen seventies. It was not that these rates were higher per mile than long haul rates; the economics of pipeline operations suggests there is a cost

difference that justified some difference. The evidence indicates, however, that the short haul rates were higher than they would have been if a pipeline handling nothing but short haul traffic had been built. In this fashion, the monopolistic power that pipelines enjoyed was used to penalize deliveries to Prairie refineries. Since this was the one area in Canada where there was a significant number of independent refineries in the late nineteen fifties — Husky, North Star, Consumer Cooperative Refineries Ltd., and Canadian Oils Ltd.—this discrimination would have served to handicap this sector of the industry.

In summary, these examples show that owners of pipelines possessed sufficient discretionary power to engage in price discrimination. This enabled them to control the laid-down price of crude types, the competitiveness and, therefore, the movement of crudes shipped through their systems. The pipelines were able to use their power not only to engage in price discrimination but also to extract monopoly returns. Both are manifestations of the monopolistic conditions that existed in this sector. The issue of profitability will be addressed in the next section.

6. *Profitability*

(a) *Introduction*

As an interface between crude production and refining, crude oil pipelines were a focal point for the exercise of discretionary power. Ownership or operation of a pipeline served to enhance crude control and the maintenance of the crude price structure upon which the industry had agreed. However, while pipeline ownership may have contributed to crude control, it need not have also resulted in high pipeline rates of return; when hypothesizing the effect of concentration of pipeline ownership, the degree of vertical integration present in the petroleum industry cannot be ignored.

Consider the case where downstream crude costs are determined by a competitive environment. Comparatively high pipeline tariffs would then cause lower wellhead prices and lower profits to be earned in the production sector.¹ If

1. For an early analysis of the incentive to transfer profits from one sector to another see M.G. de Chazeau and A.E. Kahn, *Integration in the Petroleum Industry* (New Haven: Yale, 1959), pp. 221-222. For succeeding investigations see E.W. Erickson et al., "The Pipeline Undersizing Argument and the Record of Access and Expansion in the Oil Pipeline Industry" in E.J. Mitchell ed., *Oil Pipelines and Public Policy* (Washington, D.C., American Enterprise Institute, 1979), p. 55.

taxes are lower in the production sector than in other sectors,¹ this suggests that a company which had discretionary power over pipeline tariffs affecting the return it received on its own crude would not set high tariff rates. Such a company would have preferred low rates.

This tendency is offset when not all throughput on any pipeline belongs to the owner of the pipeline. Ignoring differential tax rates in the pipeline as opposed to the production sector, a company that owned a greater share of a pipeline than was accounted for by its own shipments would benefit from higher as opposed to lower tariffs. What it would lose at the production end would be more than made up in higher profits from its pipeline investment. Table 23 lists the major Alberta light and medium gravity crude pipelines and the wellhead capacity of wells associated with each for the early nineteen seventies.² Nine of the eleven major lines were owned by three or less firms, five were owned by only one firm. In two, ownership was widely held — Peace River and Pembina. This suggests that, at least in the former group, unless ownership of production attached to these systems was as concentrated as pipeline ownership, there may have been an incentive to charge high tariffs.

Even in this case, another factor requires consideration before a determination can be made as to whether there might have been a general incentive on the part of some firms to set high tariff rates. This factor is the extent to which firms appreciated their interdependence; for what one company might have received from its own pipeline operations could have been offset by high tariff rates incurred on production that used the pipelines of others. What is required is a comparison of the concentration of pipeline ownership as opposed to crude production. Table 23 provides one such comparison. Column I contains the 'imputed control of wellhead capacity' calculated by multiplying percentage ownership in a line by the developed wellhead capacity served by the line for Alberta light and medium crude lines. Column II presents the relative position of each company with respect to crude production in Alberta. From Table 23, it is apparent that, as a group, the major pipeline owners — Texaco, Imperial, Home — could have had the incentive to maximize pipeline profits.³

1. Because of depletion allowance, the corporate tax rate was, *ceteris paribus*, lower in the production sector in Canada. This is evidenced by the fact that, with less than 100 per cent self-sufficiency, a crude price increase not accompanied by a product price increase could benefit the integrated oil companies operating in Canada. See Document # 20888, # 124219.^{541, 542}

2. Table 24 describes the ownership pattern in Saskatchewan and British Columbia.

3. Ultimately the determination of whether this incentive existed for all companies would require a knowledge of the marginal tax rates for each company in the production sector as opposed to the tax rate on profits earned in the pipeline sector.

Their percentage crude production was less than the percentage pipeline throughput (based on wellhead capacity) on which profits could have been earned because of pipeline ownership. Hudson's Bay would have been in the same position. Gulf was close to a break-even position. Because Gulf's ownership of Saskatchewan pipelines was high relative to its production in this province, it too probably would have benefited generally from high tariff rates.¹ On this basis, it would not be surprising to find that a number of the pipeline systems earned very high profits.

Until now the analysis has dealt only with the effect of pipeline tariffs upon the producing sector. When their influence on the downstream or refining sector is considered, an additional motive for setting tariffs at high levels comes into play. When downstream prices can be set by taking wellhead prices and adding the pipeline tariff (i.e. external sources of competition do not set downstream prices), then the integrated refiner who owns the pipeline can create an absolute cost disadvantage for its refinery competitors by charging high tariff rates. This motive can be found in certain deliberations of Imperial. For example, an Imperial document noted that if it could get competitors to move products through an Imperial-owned pipeline, Imperial could establish a competitive advantage:

"... to move competitors' products through this line as this movement would provide us [IOL] with an additional profit in the order of 6¢/B and would ensure that our cash costs of product distributed from Winnipeg would be below those of competition."

(Document # 88743-4, August 21, 1968, Imperial)⁵⁴⁸

All of Canada, west of the National Oil Policy Line (NOPL), was cut off from foreign crude imports during the nineteen sixties. The price of domestic crude delivered in Ontario was determined by taking the wellhead price² (or the Edmonton price) and adding Interprovincial's tariff. Because of the NOPL, refiners in Ontario had no choice but to use Canadian crude and, contrary to the situation that existed prior to 1961, could no longer turn to offshore crude. Admittedly, this market was not completely protected. Until 1970, offshore refined product continued to penetrate it. Therefore the degree of discretionary power enjoyed by the pipeline was restricted though not eliminated.

Fewer restrictions were placed on pipeline tariffs in the Prairie market. Imports of lower priced foreign crude were not available to the Prairies because

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1. Gulf's production in Saskatchewan was some 3,858 MB per year in 1971 (Document # 79298)⁵⁴³ whereas it owned 100 per cent of Mid-Saskatchewan Pipe Line in 1971. This pipeline had an average throughput of 5,475 MB per year as of 1971.
 2. As Volume II indicated, the Canadian wellhead price was established so as to permit Canadian crude to penetrate U.S. markets.

TABLE 23
OWNERSHIP OF MAJOR ALBERTA FEEDER PIPELINES

<i>Major Pipelines</i>	<i>Wellhead Capacity</i>	<i>Owning Companies</i>
Imperial Pipeline	229,600 — 100%	Imperial
Gulf Alberta	94,900 — 100%	Gulf
Federated	354,200 — 50%	Texaco Canada
Rainbow-Mitsue	238,800 — 33.33%	Mobil
	238,800 — 33.33%	Aquitaine
Texaco Exploration	189,300 — 100%	Texaco Exploration
Pembina	182,900 — 52%	Loram Holdings Ltd. (autres)
Rangeland	56,600 — 100%	Hudson's Bay Oil & Gas
Cremona	36,800 — 100%	Home Oil
Trans-Prairie	10,700 — 95.2-100%	Norcen Energy Resources
Gibson-Bellshill	10,000 — 100%	Gibson
Others	22,000 — 16.3%	
Peace	133,000	11.9% → Amerada Hess 10.3% → Petrofina 10.0% → Cdn. Superior 12.8% → Shell 11.8% → Union 7.5% → Husky 16.3% → HBOG 12.7% → Gulf
TOTAL	1,561,800	

Source: Document #4521, Interprovincial,⁵⁴⁴ and other information collected by the Petroleum Inquiry.

TABLE 24
OWNERSHIP OF HEAVY CRUDE, SASKATCHEWAN AND
BRITISH COLUMBIA FEEDER PIPELINES

Major Pipelines	Owning Companies
Mid Saskatchewan	100% (Pre-mid 1973) → Gulf 100% (Post-mid 1973) → CPOG
Bow River	50% (Pre-mid 1973) → Koch 50%-100% → Husky Oil 100% → CPOG
Husky	100% → Husky Oil
South Saskatchewan	20% → Koch 50% → Mobil 30% → Union
Producers Westspur	100% → Dome (formed Cdn. Fina, Cdn. Grid Oil, Cdn. Superior, Central Del Rio, Dome, Shell, Sun, Teck, Union)
Blueberry Taylor	22% → CPOG 13.4% → Pacific Petroleums 25.8% → Sun Oil 35% → Other
Westcoast Petroleum	29.6% → Other

Note: 1. Westcoast Petroleum: 41.3% Westcoast Transmission Co.
25.8% Pacific Petroleums Ltd.

Source: Information collected by the Petroleum Inquiry.

of its distance from tidewater; thus, the potential to charge high tariffs in this area of Canada was greater. *Ceteris paribus*, this suggests that comparatively high tariffs would most likely have been applied to deliveries in Prairie markets.

Evidence of high tariff rates can be found in the profitability of pipeline operations. However, the task of evaluating the appropriateness of a rate of return is not easy. The time and effort that has been devoted to this task by regulatory agencies is testimony to this. Much of the difficulty arises as a result of the handicap faced by the regulatory agency in evaluating testimony it receives. Given the nature of the exercise, the authenticity of the claims of the

TABLE 25
CONCENTRATION OF PIPELINE OWNERSHIP VERSUS CRUDE
PRODUCTION IN ALBERTA, EARLY SEVENTIES
 (%)

<i>Company</i>	<i>Ownership of Major Pipelines serving Light and Medium Crude**</i>	<i>Ownership of Crude Production (1971)</i>
Texaco	23.5	11.9
Imperial	19.8	17.6
Home	13.7	***
Gulf	7.2	8.0
HBOG	5.2	3.9
Mobil	5.1	8.3
Aquitaine	5.1	***
Amoco	*	6.2
Chevron	*	5.6
Shell	*	3.6

Notes: **weighted by developed wellhead capacity as of 1970

*1% or less

***2% or less of total Canadian production (Document #20356)⁵⁴⁵

Source: Column I —Document #4521⁵⁴⁶ and Information collected by the Petroleum Inquiry
 Column II—Document #79298⁵⁴⁷

firms that are regulated has to be evaluated by the regulatory agency. Fortunately, this inquiry can rely on the internal records of the industry as to what it considered a 'fair' and 'reasonable' rate of return.

(b) *The Rate of Return Criterion*

The profitability of a project is the yield it returns over the life of the investment — variously referred to as the internal rate of return or DCF (Discounted Cash Flow). In Imperial's words, "One of our primary tools for judging new investments is the comparison of project DCF's with the minimum hurdle rate reflecting the cost of capital" (Document # 101196).⁵⁴⁹ In Shell's words, "Shell's normal method of defining the earning power of capital investments is to equate the discounted value of the investments with the discounted value of the resulting cash income" (Document # 21505).⁵⁵⁰ However, the balance sheets of firms do not yield DCF rates of return. Instead they yield ratios of profitability to investment — ratios such as cash flow return or net profitability return. These are referred to as rate base measures. Since, it is these ratios that are available for Canadian pipelines, a relationship between these ratios and a DCF rate of return is required.

Several net profitability measures are used in the pipeline industry. One measure used frequently by the industry is the return on semi-depreciated rate base (SDRB). The SDRB's rate base is obtained by deducting one-half of the total depreciation from gross assets. Another rate base used for calculating a percentage return is the fully-depreciated rate base (FDRB). It is calculated by fully deducting depreciation from gross assets. The value assigned to depreciation in order to calculate both of the above mentioned rate bases was generally an estimate of the true depreciation, not that which was used for tax purposes. In view of the accelerated depreciation provisions granted in this area, the value assigned to depreciation for tax purposes is generally larger than the former.

The return used generally in the industry calculations is defined as net profits, but it may also be net profits plus long term interest payments, or net profits plus long term interest payments plus deferred taxes. The rate of return referred to as the 'NEB rate' is that which accords with the formula used by the National Energy Board in the 1971 Trans-Canada Pipelines rate case.¹ It includes net profits plus interest; the rate base is basically fully-depreciated capital plus adjustments for working capital. Unless otherwise specified, the return is calculated after income taxes are deducted from profits.

The standard rate base measures used in the industry underestimated the true profitability of pipeline systems. Imperial noted:

"The return on rate base method employed by pipeline companies results in a DCF return which is generally higher than the rate base return. In some cases the DCF return is as high as 20%."

(Document # 105765, February 2, 1968, Imperial)⁵⁵¹

The nature of the difference is provided by the following observation made on the profitability of a purchase offer by Rainbow Pipe Line for Peace River's Zama-Valleyview extension:

"It will be noted that a 5% return on semi-depreciated rate base with the additional volumes would yield 12% DCF return at a \$4,000,000 purchase price. This compares with our present 9½% DCF return including Mitsue."

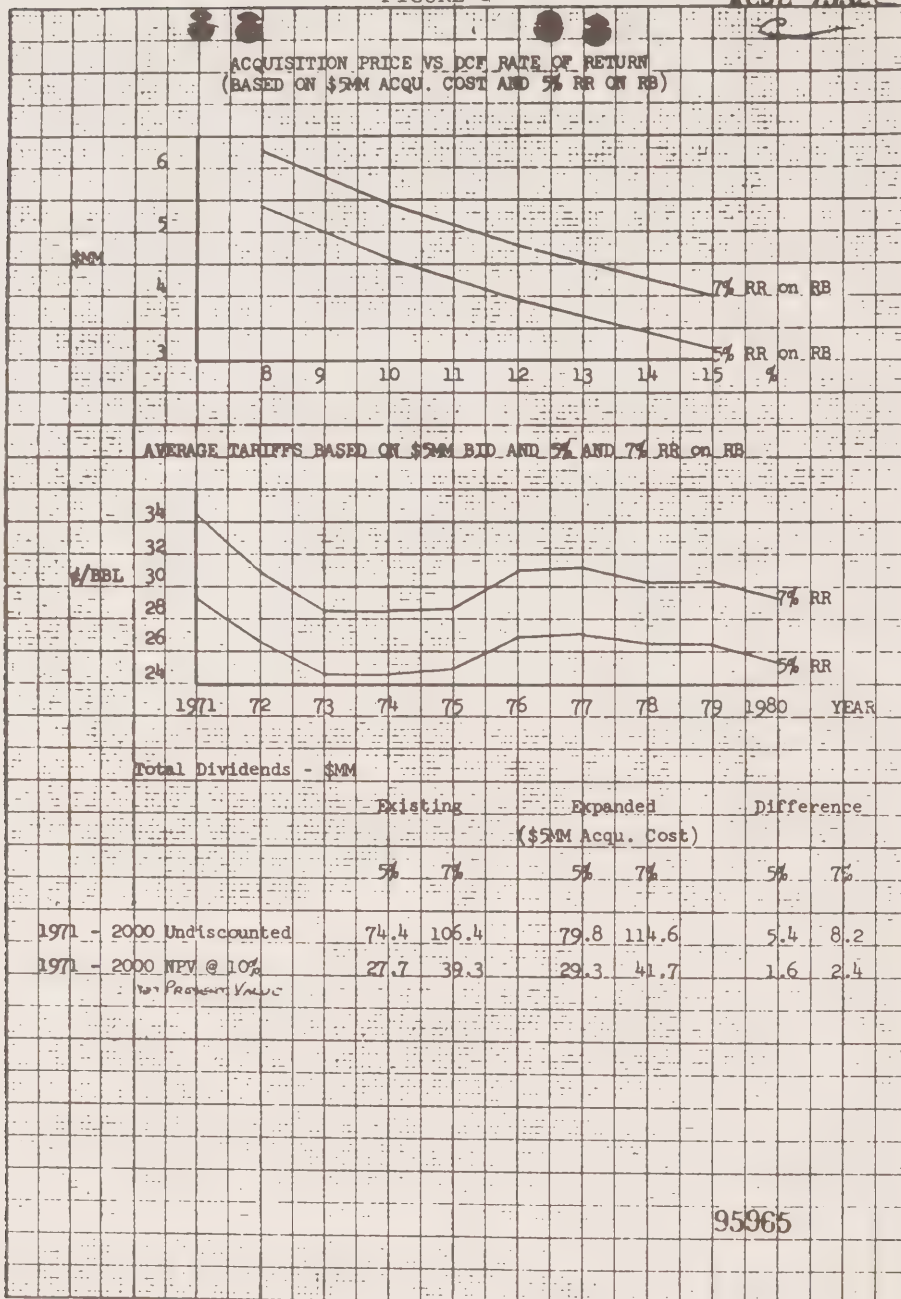
(Document # 95962, June 25, 1971, Imperial)⁵⁵²

This conclusion was based on the graph reproduced herewith (Figure 6). It is apparent that, at a purchase price of \$5,000,000, a 5 per cent rate base return would have yielded a 9 per cent DCF, a 7 per cent rate base return would have produced an 11.5 per cent DCF.

1. National Energy Board, *Reasons For Decision In the Matter of the Application under Part IV of the National Energy Board Act (Rates Application — Phase I) of Trans Canada Pipelines Ltd.*, December 1971. While the NEB now regulates the rate of return for Interprovincial, the earlier decision on gas pipelines is used as the standard of comparison here because it is to the reasonableness of this decision that reference is made in the documentation in possession of the Petroleum Inquiry.

FIGURE 6

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(Reproduction of Document # 95965
'Figure 6' added)

With this relationship established, one method of judging what an appropriate return on a rate base would be is to establish the rate of return on a DCF basis that is required. Imperial indicated that its producing sector generally earned 10 to 11 per cent DCF in the mid-nineteen sixties and averaged about 12 per cent from 1969 to 1971 (Document # 101201).⁵⁵³ It is difficult to argue that pipelines are, or were, any more risky than the exploration sector to which they belong. Indeed, it might be argued that a lower rate of return is appropriate for pipelines. Shell noted that pipelines in Canada had “an almost guaranteed income” because of their “near-monopolistic” position. (Document # 22131).⁵⁵⁴

If pipelines were not particularly risky an appropriate earnings rate for pipelines should have been no greater than the company’s average. Imperial, in 1971, calculated its cost of funds at 8.8 per cent—4 per cent after tax on debt and 10 per cent on equity (Documents # 101204, # 101224)^{555, 556} This produced “an average” hurdle rate of 9 per cent DCF (Document # 101204).⁵⁵⁷ The same study suggested that, since exploration was relatively risky, a premium should be applied to this activity and proposed a figure of 10 per cent. It also noted that “development” investments in the production sector only required 8 per cent when relative risk was taken into consideration. Therefore, if pipelines are treated as a development investment, a reasonable return on pipeline investment would have been 8 per cent DCF; if treated as an exploration venture, a reasonable standard would have been 10 per cent DCF. Shell also used rates in this range. For instance, 9 per cent was the opportunity cost discount factor used by Shell in assessing various investments and represented the “required return on a broad range of risks of the Company’s investments” (Document # 27056-7).⁵⁵⁸

The adequacy of a return of between 8 and 10 per cent DCF is supported by several studies, cited below, that resulted in recommendations for acquisition of pipelines or ownership therein. A Shell study of the Peace River Pipe Line Co. noted that 7 per cent “average annual earning power” could be earned from increased share ownership and recommended acquisition on this basis (Document # 21421-2).⁵⁵⁹

Another standard for a reasonable rate of return is provided by Imperial Oil. In 1965-66, Imperial considered acquiring part of the Rainbow Pipe Line Company, Ltd. After analysing the proposed purchase, a recommendation was made and accepted for purchase of a one-third interest in this pipeline. A number of considerations were listed: the ability to maximize wellhead prices, the protection of existing investment in Mitsue (Document # 91480),⁵⁶⁰ the tapping of what Imperial considered to be “major reserves” in Rainbow (Document # 91478),⁵⁶¹ and the participation in any major artery to the Northwest Territories (Document # 91478).⁵⁶² Equally important was Imperial’s observation that its participation would achieve a “satisfactory return

on the pipeline investment" (Document # 91480).⁵⁶³ The following excerpt indicates that it considered a satisfactory rate base return to be 5 to 6 per cent — a return that would have yielded a 9.6 per cent DCF return:

"It is proposed that Imperial participate in this venture in order to influence tariff policy to maximize wellhead price by limiting pipe line returns and to influence future expansion of this system. The DCF return on the proposal is estimated to be 9.6% The alternative for Imperial is that Mobil will construct the pipe line without Imperial participation. In this case, Mobil would have greater interest in pipe line earnings than in maximizing wellhead price which could result in pipe line earning of 7½% versus an estimated 5 to 6% if we participate. Imperial is requesting concurrence in the acquisition of a one-third interest in Rainbow Pipe Line Company Ltd."

(Document # 91478, December 30, 1965, Imperial)⁵⁶⁴

Imperial also acquired the Redwater Pipeline. Imperial's appreciation of the evaluation of its earning power from this pipeline was a DCF return of 10 per cent (Document # 129159).⁵⁶⁵

In the calculations referred to above — the acquisition of Peace River's Zama section by Rainbow and Imperial's consideration of a one-third interest in Rainbow — a return of between 5 and 7 per cent on the standard rate base used by the industry would have satisfied the 8 to 10 per cent DCF criterion. This suggests that a rate base return of 5 to 7 per cent was an adequate rate of return and should provide the basis for judging the reasonableness of profits earned by the pipeline sector.

An alternative source suggests that a rate base return even lower than 5 to 7 per cent may have been appropriate in certain situations. For instance, it is clear from Interprovincial's actions that this major trunk line considered 3 per cent to be the relevant cost of capital for a major pipeline investment connecting developed sources of supply to existing markets. This is the rate used by Interprovincial to evaluate the authenticity of a threatened incursion by another pipeline into its territory.

In 1965, St. Paul, Minnesota shippers of Fosterton crude requested a reduction in Interprovincial's tariff rate. They accompanied their request with a warning that they would build a competing pipeline into Saskatchewan if the request was denied:

"Representatives of Great Northern and Northwestern Refineries in St. Paul have requested the elimination of Interprovincial's surcharge on Fosterton type crudes being transported from Regina to Clearbrook en route to the refineries at St. Paul on a joint tariff via South Saskatchewan, IPL — LPL and Minnesota pipe line. Similar requests have been made in the past and alternative pipe line proposals have been suggested. These proposals were deflated previously by a tariff cut in November 1960 which reduced transportation costs by 6¢ per barrel. The most recent request was accompanied by a threat which proposed the construction of a pipe line from Minot on the west end of the Portal pipe line to Regina, thereby providing a more attractive transportation system to Clearbrook for these volumes. There is little doubt that this represents a serious overture on their part."

(Document # 4159, December 8, 1965, Interprovincial)⁵⁶⁶

Interprovincial's preliminary study showed that if a 6 per cent rate base return was used in calculating the rates for the new pipeline then it would not have been competitive with existing IPL rates; but at 3 per cent, it would have been competitive:

"Under comparable operating and profit levels, oil moved in a 16"-diameter line over 550 to 600 miles should not be competitive tariff-wise with Interprovincial's large-diameter, shorter-haul transportation from Regina to Cromer. However, the present Fosterton tariff from Regina to Clearbrook via the IPL/LPL system is 25.3¢ compared to a tariff via Minot of 30.8¢ (6% return), 23.8¢ (3% return) and 16.9¢ (no profit), (see Exhibit 6). Interprovincial's high 5.35¢/100b-m short-haul tariff from Regina to Clearbrook is a prime contributor to the situation. For a 6% return, a comparable 80,000 b/d Portal movement requires 4.3¢/100 b-m and a 55,000 b/d volume through the new extension, 6.1¢/100b-m."

(Document # 4165, November 1, 1965, Interprovincial)⁵⁶⁷

A month later, the final version of the report used 3 per cent as the rate of return that the competing pipeline would require; on this basis, Interprovincial decided it would lower its tariff rates for crude delivered to the Minnesota pipeline. Interprovincial summarized the conclusions of its investigation:

"Briefly, this extensive investigation reveals that the present levels of surcharges on medium and heavy crudes are justifiable through at least 1968. On the other hand, the study indicates that competitive requirements in eastern Canada have produced tariff reductions which have prejudiced the level of tariffs on short-hauls to the point where the present charges do not reflect the efficiency of a large volume, large diameter pipe line system. A review of the pipe line system proposed by the Minnesota group indicates that it could be built and operated at a level of profit of 3% to transport Fosterton crude 590 miles at a tariff of 23.8¢ per barrel as compared with the present Interprovincial movement of 471 miles from Regina to Clearbrook via IPL-LPL at a tariff of 25.3¢ per barrel. Considering the corporate connections between Erickson, Sandlin, Great Northern, Minnesota Pipe Line and Portal Pipe Line, it appears quite possible that they would consider building this proposed new pipe line system unless Interprovincial is prepared to reduce its present transportation charges."

(Document # 4161, December 8, 1965, Interprovincial)⁵⁶⁸

As a result, IPL recommended tariffs be dropped from 25.3 to 24 cents per barrel. This recommendation was implemented (Document # 4157).⁵⁶⁹ In light of these events, it is clear that Interprovincial evaluated an adequate rate of return at around 3 per cent.

Two years later, another rate reduction was requested by the same parties; on this occasion Great Northern actually filed a proposal for construction of a new pipeline — the Northern pipeline — with the National Energy Board. Once again, Interprovincial used a 3 per cent rate of return to evaluate the viability of the competitive threat. The following excerpt is from a meeting of Interprovincial's Board of Directors:

"Mr. Waldon then reviewed a memorandum on Northern Pipe Line's proposal that was given to the Board Members at the meeting. Copy of this memorandum is attached to these minutes as Appendix 'B'. In the intervention filed by Northern Pipe Line to Interprovincial's 1967 Construction Application to the National Energy Board, Northern indicated that it proposed constructing a 20-inch line from Regina directly to Clearbrook but a connection with the 16-inch Portal system at Minot would appear to be a distinct possibility. Using that portion of the Portal system, it was estimated that if Northern accepted a 3% return on its estimated investment of \$30.6 million its tariff from Regina to Clearbrook would be 20.7¢ per barrel compared to Interprovincial's present 24.0¢ for Fosterton crude."

(Document # 3547, March 21, 1967, Interprovincial)⁵⁷⁰

Using 3 per cent as the opportunity cost of capital, Interprovincial calculated it would be necessary to decrease its tariff by 3.3 cents per barrel. Since its eventual concession was 4 cents per barrel (Document # 3523),⁵⁷¹ Interprovincial acted as if the rate base criterion was actually less than 3 per cent.

Major feeder pipelines adopted a somewhat higher standard than Interprovincial — around 5 per cent. For instance, in 1964, Peace River Oil Pipe Line Co., established its return criterion as 2 per cent (using tax depreciation to calculate taxes payable) for new trunk line investments and 5 per cent (using book depreciation to calculate income tax payable) for other investments (Document # 93099).⁵⁷² By 1973, in the face of rapidly increasing inflation, Peace River had increased the target rate for trunk line investment to only 7 per cent¹ (Document # 15033).⁵⁷⁴

Peace River was one of the major pipelines serving Alberta in which ownership was relatively diversified. In 1976, the ownership was: Amerada Hess, 11.9 per cent; Gulf Oil, 12.7 per cent; Petrofina, 10.3 per cent; Hudson's Bay Oil and Gas, 16.3 per cent; Husky, 7.5 per cent; Canadian Superior, 10.0 per cent; Shell Canada, 12.8 per cent; and Union Oil, 11.8 per cent. Since control was not concentrated in the hands of one company, this suggests the rate of return policy of Peace River Pipe Line would not have been aimed at extracting high profits. Its rate base criterion should, therefore, represent the opportunity cost of capital for a medium sized feeder pipeline.

The 5 per cent rate of return criterion was also used when the industry entered into self-regulation — apparently a relatively infrequent occurrence at the pipeline level. For instance, when the Producers' Pipe Line was sold to Dome Petroleum in 1971, the shareholders — Canadian Fina Oil, Canadian Grid Oil, Canadian Superior Oil, Central Del-Rio Oils, Dome Petroleum, Gulf Oil Canada Ltd., Hudson's Bay Oil and Gas, Imperial Oil, Mobil Oil Canada, Scurry Rainbow Oil, Shell Canada, Sun Oil, Teck Corp., and Union Oil —

1. Shell noted current tariffs were set to yield an average return over service life of 4.1 per cent and that 6.5 per cent would yield only 5.0 per cent over the service life (Document # 22666).⁵⁷³

obtained an agreement that Producers' rate of return on semi-depreciated rate base not exceed 5 per cent (Documents # 95903, # 27076)^{575, 576}. It is significant that such a wide diversity of companies insisted on 5 per cent, and that the new owner accepted this restriction.

The same figure of 5 per cent is once again raised in discussions pertaining to another sale in 1971. When Peace River was approached by Rainbow to sell its Zama gathering system, the Peace shareholders requested that a tariff policy be guaranteed that would generate no more than "a 5% annual return on a semi-depreciated rate base" (Document # 19759).⁵⁷⁷ Equally important, in assessing the acquisition, Mobil admitted to using 5 per cent and 7 per cent earning rates on a semi-depreciated rate base which "generally brackets expected rates of return" (Document # 19760).⁵⁷⁸

Another reference to a reasonable rate of return is found in an earlier acquisition. In 1969, Rainbow had evaluated the purchase of the Mitsue system. In doing so, a return of 5 per cent was chosen for the calculations pertaining to both Rainbow and Mitsue (Document # 91439).⁵⁷⁹ During these negotiations, at least one of the original owners indicated it wished some safeguard against exorbitant tariffs being charged at a later date. In response to this Imperial suggested that a guarantee be given that the rate of return not be higher than 7 per cent on a semi-depreciated rate base (Document # 96053).⁵⁸⁰ Imperial's criterion was some 2 per cent over those described above — the 5 per cent limit, which seems to have been accepted elsewhere as reasonable.

In summary, the industry generally used a rate of return around 5 per cent as an appropriate rate base criterion. Sometimes, the rate so quoted was as low as 3 per cent; sometimes as high as 7 per cent.

References can be found not just to what members of the industry considered an acceptable rate of return but also to what they regarded as too high a rate. As early as 1957, an Imperial study of Canadian pipeline earnings for 1955 concluded with the observation:

"It was noted that in the Canadian companies reviewed, there were instances of rapid depreciation accompanied by high rates of return. This is in marked contrast to the U.S. pattern."

(Document # 127388, March 4, 5, and 6, 1957, Imperial)⁵⁸¹

In this same study, Imperial calculated the ratio of net earnings to depreciated plant for Gulf's Mid-Saskatchewan system as 26.9 per cent and described this as "hardly justified" (Documents # 127378, # 127384).^{582, 583} In addition, the Imperial study claimed that, in the case of Canadian Gulf, Texaco and Trans-Prairie, "their high earning rates leave them open to criticism" (Document # 127379).⁵⁸⁴ Their rates of return — calculated as net earnings to depreciated plant — were reported as 20.4 per cent, 18.4 per cent, and 18.4 per cent respectively (Document # 127384).⁵⁸⁵

The rate of return did not have to be on the order of 18 to 25 per cent to be considered abnormally high. Shell provided another standard of comparison with a reference in 1970 to Bow River's "current tariff levels which are abnormally high (rate base return approximately 15%)" (Document # 22610).⁵⁸⁶ More specifically, it noted that Bow River's return had averaged about 13 per cent SDRB — a rate that was "unusually high":

"Exhibit 8 [Figure 7] provides a historical analysis of return realized on investment: Cash/Gross ratios in 1969 averaged 25%; Net/Equity ratios 27%; and the return on semi-depreciated rate base has averaged about 13%. *It should be noted that the rate base return is unusually high...*"

(Document # 22596, January, 1971, Shell, emphasis added)⁵⁸⁷

Figures below 13 per cent are also referred to as being too high. In 1965, Texaco worried about the effect that price competition at the pipeline level would have had on their "continuing high income from Federated" (Document # 54995).⁵⁸⁸ During the three previous years, Federated had earned 9.64 per cent, 9.13 per cent and 9.39 per cent after tax on an SDRB basis, and 23.47 per cent, 24.29 per cent and 25.35 per cent before tax, NEB basis. This same range is confirmed as being "high" by Hudson's Bay Oil and Gas in 1972. In referring to earnings on its Rangeland system in that year, HBOG noted that its "earnings levels continue to be well above current industry targets for rate of return" (Document # 14406).⁵⁸⁹ Rangeland's earnings in 1971 and 1972 were 10.1 per cent and 11.9 per cent on an SDRB basis after tax, and 25.12 per cent and 29.32 per cent before tax, NEB basis. In both these cases, an SDRB return of 9 to 10 per cent after tax and the NEB before tax return of 20 to 25 per cent was characterized as high.

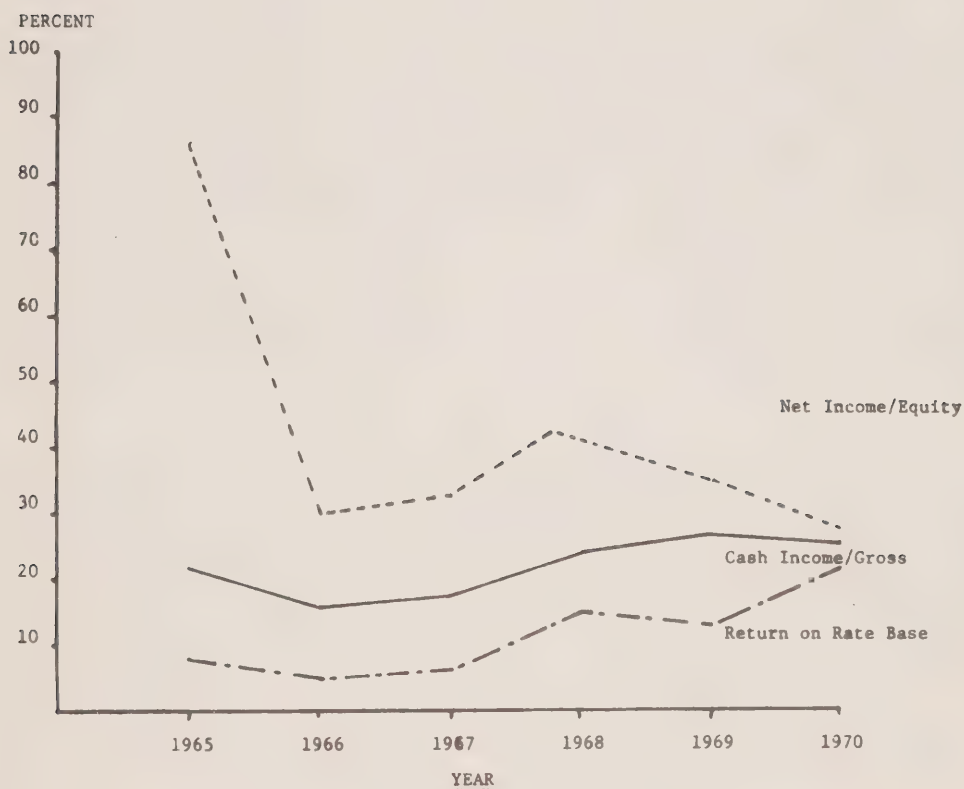
The third relevant standard that can be used to establish the return regarded as reasonable is the rate that the National Energy Board adopted for its regulation of the Trans-Canada Pipe Line system. In 1971, the NEB ruled that 9 per cent on a fully-depreciated rate base was the rate of return it would permit in ruling on the appropriateness of Trans-Canada's tariff rates. The petroleum industry responded to this ruling by arguing with the NEB that it required special treatment compared to natural gas pipelines; privately, however, the petroleum industry recognized that petroleum pipelines were no more risky than gas lines and that the NEB guidelines were not unreasonable. Shell, for instance, noted that "the rate of return guidelines *implied* by the NEB in their recent discussions are considered realistic for established oil pipe lines" (Document # 22026).⁵⁹⁰ Shell noted that, given the relative risk involved in petroleum pipelines, the 14 to 15 per cent return allowed on equity by the NEB decision was more than generous:

"The equity investor is entitled to a return on his investment equal to the return on alternate investments with due allowance for differences in risk. . . .The N.E.B. in the TCPL [Trans-Canada Pipe Line] hearing set a level of return on equity at between 14 and 15% for the natural gas pipeline.

FIGURE 7

EXHIBIT 8

BOW RIVER PIPE LINES LTD.
RETURN ON INVESTMENT BY YEAR

ACJO 1436
sa

Return on Rate Base - Net Income/year average semi-depreciated rate base.

Cash Income - before interest, after income tax.

Net Income - before deducting deferred tax.

Equity - before deducting deferred tax

22604

January 1971

(Reproduction of Document # 22604
'Figure 7' added)

“The major issue in any approach to the NEB by oil pipe line companies should be related to the adequacy of the foregoing 14-15% level of equity return. It is difficult to argue against a return on equity of 14 to 15% for established pipe lines when even the high risk industries (such as mining) as reported in Fortune’s 500 for 1970 earned less than 14% on equity on the average.”

(Document # 22029-30, March 9, 1972, Shell)⁵⁹¹

In particular, Shell argued that the risks involved in petroleum pipelines were no greater than in natural gas pipelines:

“In summary, there are similar risks to investing in either oil and gas lines, and hence the target of 14 to 15% return on equity for an established gas line should also apply to established oil lines.”

(Document # 22030, March 9, 1972, Shell)⁵⁹²

Shell was not the only firm to argue privately that oil pipelines were relatively safe investments. Imperial, in 1957, noted the “profit potential involved in a company which has been given a monopolistic franchise to carry oil or gas from areas with ample and increasing reserves to serve markets with consistently increasing appetites and expanding geographical areas” (Document # 127399).⁵⁹³ Observing that, in contrast to the U.S. situation, Canadian pipeline stocks had appreciated more quickly than the average of industrial stocks, the Imperial study attributed this to the “monopolistic position of Major Canadian Lines. Once given a charter, it seems improbable at the present that ‘in the national’ interest, there will ever be any competition for them” (Document # 127401).⁵⁹⁴

The high levels of profitability of Canadian pipelines noted in 1957 continued throughout the period under examination, but not, it should be stressed, because of any inherent risk involved in that sector of the petroleum industry. Shell, in 1961, observed that “equity investment in Canadian oil pipe lines yielded on the average a high rate of return with a relatively low risk attached” (Document # 21538).⁵⁹⁵ The excessive income level of this sector was attributed to its monopolistic structure:

“Pipe lines normally have an almost guaranteed income over a considerably long period. *This is inherent in their near-monopolistic position as carriers of oil from proven sources of supply to locations with a relatively secured demand.*”

(Document # 21538, July, 1971, Shell, emphasis added)⁵⁹⁶

Imperial’s explanation for the pipeline sector’s profitability was similar to Shell’s. In commenting on the fact that investment in pipelines had been “phenomenally successful” (Document # 95896)⁵⁹⁷ an Imperial document emphasized that “none of the three major pipe lines has truly experienced a great deal of risk particularly in view of the permit system which provides them with a virtual monopoly for Canadian crude deliveries” (Document # 95896).⁵⁹⁸

These quotations indicate that the petroleum industry did not consider pipelines to be inherently risky. Therefore, the NEB standard of 9 per cent that was set for the gas pipeline industry provides another standard against which the industry's performance can be judged.

If the NEB ruling on Trans-Canada is accepted as another standard, it is important to relate that standard to the industry's own rate base return — calculated on a semi-depreciated capital base. Table 26 compares the rate of return earned by the major crude oil trunk pipelines using the NEB basis and the standard industry calculations that use semi-depreciated rate base (SDRB). The basic difference it should be recalled, between the fully depreciated rate base used by the National Energy Board and the semi-depreciated rate base (SDRB) is that the latter uses a depreciation value that is one-half of the value used in the fully depreciated base. The SDRB rate, whether with or without interest included along with net profits, is less than the NEB fully depreciated rate. If the average of the differences between these rates as reported in Table 26 is deducted from the 9 per cent allowed by the NEB for Trans-Canada, a comparable rate would be 6 per cent SDRB with interest and 4 per cent without interest — the very range that earlier examples suggests was the range that members of the industry regarded as reasonable.

TABLE 26
NORMALIZED¹ NET INCOME
RATES OF RETURN (1970)
(%)

<i>Company</i>	<i>NEB with Interest</i>	<i>SDRB with Interest</i>	<i>SDRB without Interest</i>	<i>Return on Common Equity²</i>
Interprovincial (IPPL) (Canadian Section Only)	15.0 ³	12.1	8.7	24.0
Interprovincial (Consolidated)	11.1	9.4	5.7	24.5
Trans Mountain	19.5	13.4	12.0	29.0
Portland	7.8	6.3	4.5	9.9
Montreal	12.9 ⁴	9.8	7.9	17.7
Portland Montreal	8.6	6.8	5.9	12.8
Trans-Canada	9.0	8.2	3.4	14-15

Notes: 1. After Income Taxes Payable

2. Based on normalized net income and after preferred dividends where applicable.

3. Does not include dividends from Lakehead.

4. Does not include dividends from Portland.

Source: Document #22031, Shell⁵⁹⁹

In conclusion, the standard to be used to judge the pipeline sector's performance is 3 to 5 per cent SDRB (without interest in net profits), 5 to 7 per cent SDRB (with interest in net profits), and 9 per cent NEB fully depreciated.¹ If 100 per cent equity is assumed, the latter translates to 18 per cent before taxes. Otherwise it is less.² Each of these standards has been developed by taking into account what the industry privately considered acceptable. In some cases, this information was obtained from actual agreements to limit returns; in others it came from proposals to limit returns; and finally it was derived from the National Energy Board's guidelines — guidelines that, when translated to the industry's formula, almost exactly matched the rates that were accepted as reasonable by the industry.

(c) *The Profitability of Major Feeder Pipelines*

The feeder pipelines as a group are the intermediate sized lines that move crude from the producing areas and their gathering systems to the trunk pipelines — Interprovincial and Trans Mountain. Figure 8 is a map of the major feeder pipelines in western Canada. The profitability of these lines is presented in Tables 27 to 34 and summarize in Table 35. More than one rate base measure is generally presented. The SDRB return is that used by the industry. The numerator consists of net earnings after tax and interest charges are deducted unless otherwise specified. The NEB definition is that which most closely accords with the definition used by the Board in the Trans-Canada decision.³ It is reported both before and after taxes where possible. It should be recalled that the relevant standard for a reasonable rate of return developed above was about 5 per cent SDRB (after tax and after interest are deducted), 9 per cent NEB (after tax is deducted) and 18 per cent NEB (before tax is deducted).

It was suggested previously that the difference in the concentration of ownership of pipelines as compared to the ownership of production might have provided the incentive to set high tariff rates for those lines controlled by Imperial, Texaco, Home, Gulf, Gibson, and Canadian Industrial Gas and Oil

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1. The NEB definition of net income includes interest payments.
 2. The NEB standard of 9 per cent can be translated into a before tax rate of return that takes into account the distribution of capital between debt and equity. The NEB allowed an average interest rate of 7.55 per cent on debt (Decision, December 1971, p. 6-16). Debt made up about two-thirds of total capitalization (Decision, Trans-Canada, December 1974, p. 6-6). If a 50 per cent tax rate is assumed, then the 9 per cent return translates into about 13 per cent before taxes. Thus the 18 per cent figure quoted above is highly conservative; nevertheless, it will be seen that many pipelines earned much more than this.
 3. Some companies, in reporting their rate of return on an NEB basis, reported that the number submitted accorded as closely as possible with the NEB definition.

(now Norcen Energy Resources Limited). The summary Table 35 indicates that almost all lines controlled by these companies earned rates that were above the standard established for a reasonable rate of return.¹ For instance, the NEB (before tax) measure between 1961 and 1974 averaged 32.9 per cent for Gulf Alberta; 30.2 per cent for Federated (Texaco-owned); 25.4 per cent for Texex (Texaco-owned); 69.85 per cent for Gibson's Bellshill line; and 24.4 per cent for Imperial Pipe Line. Table 30 indicates that the different systems of Norcen Pipelines Ltd. (formerly Trans-Prairie Pipelines) earned rates of return that ranged on various segments from 31.9 per cent to 192.3 per cent on an NEB (before tax) basis.²

There are three other Alberta pipelines with concentrated ownership whose profitability was closer to the competitive norm. These were Rainbow (Imperial, Mobil and Aquitaine), Rangeland (Hudson's Bay Oil and Gas) and Cremona (Home Oil). Rainbow's average return between 1966 and 1974 was 5.9 per cent SDRB, and 17.9 per cent NEB before tax (Table 29). This corresponds closely to the two standards adduced previously. The relatively good performance of this company can be explained by the fact that, until 1971, it was competing with Peace River. With the demise of this source of competition, Rainbow's profitability moved up to a level comparable to that of the others (Table 29). The average profitability of both Rangeland and Cremona³ between 1961 and 1974—calculated on an NEB (before tax) basis—was close to the NEB standard of 18 per cent. (Tables 28 and 30 respectively). However, neither Hudson's Bay Oil and Gas nor Home can be characterized as a 'major' oil company with the potential discretionary power to exploit the production sector.

The ownership in two other pipelines — Peace River and Pembina — was widely held and, therefore, both were less likely to have earned excessive profits. This is certainly true of Peace River. Its average return between 1961 and 1974 was 3.9 per cent SDRB, 13.73 per cent NEB (before tax) (Table 30). Pembina did somewhat better, earning an average 21.7 per cent NEB (before tax) over the same period (Table 30).

The behaviour of the two medium, light Saskatchewan lines differed from one another (Table 31). Mid-Saskatchewan, owned solely by Gulf until its sale in 1973, earned extremely high profits. Its rate of return averaged 179 per cent NEB (before taxes) between 1966 and 1972. Producers-Westspur — whose

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1. The history of Mitsue is really too brief to permit any conclusions to be drawn about the 'reasonableness' of its return.
 2. A Shell study (see Table 34) indicates that Trans-Prairie was between 200 and 400 per cent more profitable than Interprovincial prior to 1960.
 3. Since Cremona's SDRB is high relative to its NEB return, this leaves some doubt as to the validity of the numbers submitted.

ownership was more widely held — earned rates that exceeded industry standards by much less than those reported by Mid-Saskatchewan. Even so, its profits provided a high rate of return. The following quotation indicates that Shell's return on its investment in Producers' pipeline approached 24 per cent:

"The sale of Shell's 7.07% interest in Producers Pipelines Ltd. in 1970 does not appear to follow Shell's objective of ensuring proper tariff protection for its producing operations and ensuring maximum participation in economically attractive ventures. However, in this circumstance, Shell was unable to prevent the sale because of the purchaser's private dealings with other shareholders which created a paper company no longer representing an attractive investment for Shell. . . . Despite the fact that *our original share investment returned an AAEP of 24% over a 13-year period*, Shell is now in the position of owning 13% of the crude shipped through a pipe line in which it no longer has an interest and which would have continued to provide an attractive return to Shell."

(Document # 21509-10, July, 1971, Shell, emphasis added)⁶⁰⁰

Table 32 reports the rate of return for three heavy crude lines. In the case of Bow River and the South Saskatchewan pipeline, the return is well above the standard established for reasonableness. South Saskatchewan averaged 33.9 per cent NEB (before tax) between 1961 and 1974. Bow River averaged 29.4 per cent NEB (before tax) between 1964 and 1974. Husky, on the other hand, earned only an average of 9.6 per cent NEB (after tax) between 1963 and 1974—about the norm established for reasonableness.

Finally, the profitability of the two major British Columbia pipelines is recorded in Table 33. In neither case did the rate of return approach the high levels earned elsewhere.

In general, feeder pipelines in both Alberta and Saskatchewan, when controlled by a single or a small number of companies, exhibited a history of excessive levels of earnings. This is one more manifestation of the monopolistic conditions that existed in the pipeline sector.

While this was in the first instance the result of the concentration in pipeline ownership, it was also caused by the perceived interdependence of the owner firms. Texaco's decision to support Imperial's moves on the Rainbow system because it risked losing its high earnings on Federated has been recounted. The factors affecting this firm's decision bear repeating. In commenting upon the desirability of switching crude from Peace River to the Imperial system, Texaco noted:

"Home is very concerned that additional tariff reductions would be made if Imperial and California Standard believe it necessary to attain some throughput from the Nipisi field. They, too, have voiced a great deal of concern about the effect on Federated. As we see it, Imperial and California Standard who are both substantial producers in the area served by Federated, would not be adverse to embarrassing Federated and attempting to force substantial tariff reductions.

TABLE 27
FEEDER PIPELINE PROFITABILITY
(%)

Year	Gulf Alberta (Gulf)		Federated (Texaco)		Texex (Texaco)
	SDRB (AT)	NEB (BT)	SDRB (AT)	NEB (BT)	NEB (BT)
1959			2.61	7.78	
1960	10.14		7.09	16.63	19.4
1961	11.42	28.51	9.64	23.47	28.6
1962	9.75	25.08	9.13	24.29	26.0
1963	7.47	20.34	9.39	25.35	23.9
1964	8.28	23.49	10.56	28.34	21.6
1965	7.45	21.85	12.91	33.01	19.4
1966	7.43	21.91	13.19	34.76	20.1
1967	10.63	33.25	11.22	30.81	22.9
1968	9.60	32.22	10.40	30.00	20.2
1969	8.64	30.10	9.68	27.23	22.3
1970	9.68	34.69	8.99	26.65	24.9
1971	11.55	40.84	11.35	30.98	23.6
1972	17.16	59.66	13.39	33.75	28.4
1973	15.77	58.12	14.88	38.77	42.7
1974	10.49	30.63	12.56	34.80	30.8
1961-74	10.38	32.91	11.24	30.16	25.4

Notes: BT is before tax is deducted.

AT is after tax is deducted.

NEB is National Energy Board basis in Trans-Canada case.

SDRB is semi-depreciated rate base.

...

"We realize that the foregoing is a rather involved web of reasoning but believe the evidence and conclusions we have reached are valid and that a very real threat to our continuing high income from Federated exists. We believe there is an excellent chance that this threat can be removed for some time to come by switching our crude stream to Nipisi."

(Document # 54995, October 1, 1965, Texaco)⁶⁰²

This excerpt suggests that both Texaco and Home Oil were cognizant of the dependence of their pipelines' profitability upon the acquiescence of Imperial. It was this type of *quid pro quo* that permitted the establishment of feeder tariffs that generally yielded abnormally high profits.

Another example of the interdependence of owner firms is provided by events surrounding a disagreement that developed between producers on the Bow River pipeline system and the pipeline owner in 1971. Imperial reported that Mr. Joudrie — the President of Ashland Oil Canada — called Imperial and recounted that:

TABLE 28

FEEDER PIPELINE PROFITABILITY

	Gibson-Bellshill Lake (Gibson)		Cremona (Home)		Norcen Pipelines Ltd. formerly Trans-Prairie Pipelines Limited (Norcen Energy Resources)			
	SDRB (BT)	NEB (BT)	SDRB	NEB (BT)	B.C. System NEB (BT)	Alberta System NEB (BT)	Sask. System NEB (BT)	Manitoba System NEB (BT)
1960	10.11	15.95	11.35	18.90				
61	9.62	14.46	7.31	11.38				
62	12.85	19.91	5.12	6.40				
63	10.29	20.37	5.88	8.78				
64	14.58	30.21	7.58	14.47				
65	16.68	32.14	9.40	17.64				
66	20.63	46.55	9.29	13.39				
67	21.02	68.53	10.02	15.12				
68	19.63	108.67	7.61	8.11	32.7		8.39	37.7
69	18.20	139.58	9.26	13.55	31.9		118.0	37.3
1970	23.89*	248.54*						
70	25.61**	194.02**	10.11	18.22	37.7		150.8	54.2
71	53.42	76.09	9.98	19.22	39.4		144.7	58.2
72	53.03	64.78	11.84	27.17	40.9	52.0	154.5	64.6
73	74.96	88.71	15.68	45.58	43.2	113.7	162.4	86.4
74	47.59	46.55	14.25	38.05	51.5	145.0	131.4	92.9
75				39.45	43.4	157.4	107.1	86.4
76					51.8	192.3	143.1	53.4
1961-74	28.38	69.85	9.52	18.36				

Notes: see Table 29 for definitions

* First 6 months

** Last 6 months

TABLE 29
FEEDER PIPELINE PROFITABILITY
(%)

YEAR	<i>IOL Pipeline (Imperial)</i>		<i>Rainbow (Imperial, Mobil, Aquitaine)</i>			<i>Mitsue (Imperial, Home, Chevron)</i>	
	<i>IOL (BT)</i>	<i>NEB</i>	<i>SDRB</i>	<i>NEB (AT)</i>	<i>NEB (BT)</i>	<i>IOL* (AT)</i>	<i>NEB (BT)</i>
1960	3.3	6.8					
61	12.0	22.0					
62	14.6	25.9					
63	12.6	20.6					
64	13.5	24.2				(0.9)	(.08)
65	11.1	21.5				6.3	9.3
66	13.7	25.2	0.2	2.66	2.66	26.7	14.5
67	15.8	28.3	4.0	12.50	12.50	22.5	16.8
68	19.5	33.7	3.1	12.01	12.01	18.8	17.1
69	10.9	18.9	4.6	13.13	16.17		
70	12.0	22.5	5.0	12.61	17.03		
71	12.7	25.0	6.0	12.51	17.38		
72	12.4	30.4	8.7	14.97	23.66		
73	11.8	31.4	11.7	17.23	30.91		
74	4.7	11.1	10.2	16.50	29.08		
61-74	12.7	24.4					
66-74			5.9	12.68	17.93		
64-68						14.7	11.52

Notes: see Table 29 for definitions

* (Earnings AT + Interest) / Total Assets

"Ashland feel that Koch Oil as owners of Bow River Pipe Lines Ltd. should be lowering their tariffs to enable the producers to get a better wellhead netback.

...

"They have requested Montreal Engineering to conduct a rate base calculation using public information such as audited financial statements, etc. Montreal Engineering in their report stated that Bow River Pipe Lines appeared to have a 20-25% rate of return.

...

"Ashland have consulted legal counsel in Calgary, Edmonton and Toronto, and feel their only recourse if Koch does not give them suitable tariff reductions is to request a hearing by the Alberta Public Utilities Board. Ashland are concerned that if the PUB consents to a hearing, *they will probably look at all other pipelines in the province.*

TABLE 30
FEEDER PIPELINE PROFITABILITY
 (%)

	<i>Rangeland</i> (Hudson's Bay Oil & Gas)		<i>Pembina</i> (ownership widely spread)	<i>Peace</i> (ownership widely spread)	
	<i>SDRB</i>	<i>NEB (BT)</i>	<i>NEB (BT)</i>	<i>SDRB</i>	<i>NEB (BT)</i>
1955					
56		2.25			
57		4.13			
58		13.25	11.3	1.9	7.18
59		17.36	13.7	3.7	11.19
1960	4.0	16.01	14.2	3.4	10.45
61	7.0	22.46	15.7	3.6	14.60
62	8.9	21.36	14.0	2.6	14.52
63	5.6	15.75	13.5	3.6	13.20
64	5.4	16.95	15.8	4.5	15.62
65	5.8	17.16	15.6	4.3	13.65
66	6.1	12.30	16.8	4.7	14.21
67	4.4	12.40	18.8	4.3	14.96
68	4.0	11.35	19.8	2.4	8.65
69	3.5	11.81	23.4	1.5	8.10
1970	5.9	17.28	27.7	1.8	9.50
71	10.1	25.12	30.7	4.3	12.36
72	11.9	29.32	27.8	6.2	17.54
73	12.1	31.34	32.7	6.3	18.89
74	9.2	25.55	31.8	4.8	16.47
61-74	7.1	19.30	21.7	3.9	13.73

Note: see Table 27 for definitions

“Mr. Joudrie called to advise us of the status of this discussion. He apparently has also advised Mr. R.C. Turner of Gulf Oil.”

(Document # 139805-6, March 15, 1974, Imperial)⁶⁰³

It is significant that the complainant indicated that it did not want the regulatory authorities involved. In effect, it was informing Gulf and Imperial of a threat to the system if it was not satisfied. Taken in conjunction with the dominance of these two firms, it is not unreasonable to assume that Ashland was requesting Imperial to put pressure upon Koch Oil. This is another instance in which members of the industry showed a willingness to resolve pricing disputes through a discussion that was intended to result in a type of consensus. Earlier examples of discussions related to the determination of crude prices. In this case, it was the level of return and the resulting pipeline tariffs that were the subject of this consensus.

TABLE 31
FEEDER PIPELINE PROFITABILITY
 (%)

	<i>Mid-Saskatchewan</i>				<i>Producers—Westspur</i>		
	<i>SDRB*</i>	<i>NEB (AT)*</i>	<i>NEB (BT)*</i>	<i>NEB (BT)**</i>	<i>Producers</i>		<i>Westspur</i>
					<i>SDRB</i>	<i>NEB (AT)</i>	<i>NEB (AT)</i>
1955							
56							
57							
58							
59							
60						7.29	11.35
61						12.79	9.97
62						9.58	9.91
63					5.0	8.71	8.61
64					5.6	10.04	9.43
65					6.1	11.16	9.68
66	24.28		211.01		6.2	11.79	9.33
67	30.52		250.00		6.7	13.34	9.79
68	25.44		208.71		5.8	12.40	8.72
69	18.85		153.36			11.73	8.10
70	15.19		126.72				10.13
71	17.80		146.27				11.19
72	19.11		161.21				11.58
73	8.57	2.78	84.06	8.18			13.06
74		5.65		14.15			16.20
61-74							10.41
60-69						10.88	
66-72	21.60		179.61				

Note: see Table 27 for definitions

* Gulf Submission

**Bow River Submission

(d) *Trunk Line Profitability*

(i) *Interprovincial*

An appreciation of Interprovincial's tariff policy requires an understanding of the relationship between Imperial and Interprovincial. Although Imperial owned only 33 per cent of Interprovincial's stock, it effectively controlled the pipeline. Interprovincial gave three reasons why, for legal purposes, "it would be extremely difficult to argue against control" (Document # 5287).⁶⁰⁴ These were:

TABLE 32
FEEDER PIPELINE PROFITABILITY
(%)

	Bow River				South Saskatchewan			Husky
	SDRB	NEB (AT)	NEB (BT)		SDRB	NEB (AT)	NEB (BT)	NEB (AT)
			Bow	Pan-Cdn				
1955								
56								
57								
58								
59								
60					8.3	11.11	19.14	
61					8.3	11.01	19.80	
62					11.9	16.64	31.37	
63					13.3	15.60	32.42	1.1
64		(5.36)	(4.46)	(2.52)	15.7	22.80	44.54	3.1
65		6.15	16.58	79.59	14.0	19.96	37.56	6.5
66		4.98	18.65	76.52	11.8	18.40	33.13	10.0
67		6.92	22.18	18.58	9.1	14.71	26.45	11.5
68		11.70	30.72	30.05	8.2	13.50	25.32	12.6
69		16.18	35.59	39.67	7.7	13.04	24.43	12.4
70	22.0	17.98	42.12	51.52	8.6	10.43	26.35	12.2
71		16.00	39.36	46.36	12.0	16.01	33.96	12.8
72		14.92	35.90	40.39	12.3	17.10	35.63	10.4
73		18.97	49.04		12.5	18.75	42.52	11.8
74		15.59	37.50		12.0	19.49	43.44	10.7
64-74		11.28	29.38		11.3	16.74	33.94	
63-74								9.6

Note: see Table 27 for definitions

“(a) Imperial Oil owns a substantial portion of this Company’s stock (33%).

(b) Three of its senior management are members of this Company’s Board of Directors.

(c) One of its senior management is not only a Director of this Company, but also a senior officer.”

(Document # 5287, April 18, 1973, Interprovincial)⁶⁰⁵

Furthermore, on the operations side, Imperial acted as purchasing agent for Interprovincial (Document # 3693).⁶⁰⁶ Apart from this, Imperial provided four other important functions for Interprovincial.

TABLE 33
FEEDER PIPELINE PROFITABILITY
 (%)

<i>Year</i>	<i>Blueberry-Taylor</i>	<i>Westcoast Petroleum</i>
	<i>NEB</i>	<i>NEB (BT)</i>
1955		
56		
57		
58		
59		
1960		
61		
62	2.2	10.6
63	16.3	16.4
64	15.8	11.9
65	11.2	15.3
66	8.5	20.9
67	11.9	15.9
68	7.7	18.4
69	8.6	19.9
1970	9.6	19.5
71	12.1	20.2
72	19.8	20.4
73	9.8	21.3
74	10.1	21.3
75		
1962-74	11.0	17.8

Note: see Table 27 for definitions

First, Imperial served to coordinate activity both between the feeder pipelines and Interprovincial and between the shippers and Interprovincial. The following excerpt from an Interprovincial document describes the nature of Imperial's coordinating role:

"One drawback of the Statistical Supply Committee's recent retrenchment is that we are left without an effective means of determining Interprovincial's portion of the total production of each incoming feeder line each month. Previously, *I.O.L. had used information within their organization and had made the necessary calls to feeder lines and other Shippers* to determine the splits in production between Interprovincial/Trans Mountain/Local Refineries/Aurora. We need this information for proper monitoring and control of incoming feeder line rates."

(Document # 11921, February 14, 1972, Interprovincial, emphasis added)⁶⁰⁷

TABLE 34
NET INCOME BEFORE INTEREST
AS % OF AVERAGE INVESTMENT
(EQUITY + DEBIT + DEFERRED TAX)
(%)

<i>Year</i>	<i>Trans Mountain</i>	<i>Interprovincial</i>	<i>Trans-Prairie</i>
1950		0.7	
1951		6.5	
1952		7.0	
1953	loss	4.9	
1954	1.2	5.4	21.4
1955	6.9	5.6	22.7
1956	10.2	6.9	24.6
1957	10.3	6.6	26.0
1958	3.0	8.0	22.7
1959	4.4	9.1	11.4
1960	5.9	8.9	15.4

Source: Document #22141-3, Shell⁶⁰¹

Secondly, Imperial acted as a mediator between shippers and Interprovincial when problems arose. In the following excerpt, Imperial's role as a buffer between angry shippers and Interprovincial is described:

"Mr. John Poyan of Imperial called this morning and he informed the writer that a representative of Mobil Oil had been in contact with him and that Mobil, as well as other producers, were annoyed at Interprovincial for having shut down the Pembina Pipe Line system late in October. He also mentioned that Rainbow Pipe Line had been shut down due to lack of tankage at Edmonton. Seemingly the Mobil representative had intimated that the producers were advocating going to Premier Strom with this problem, inferring that they would ask the government to insist that Interprovincial furnish tankage to take care of fluctuations in demand and supply.

...

"Mr. Poyan finally agreed that Interprovincial was not at fault but suggested that we prepare a detailed background of these causes and suggested that we get in touch with him so that he in turn can go back to the Mobil representative."

(Document # 13050, November 11, 1969, Interprovincial)⁶⁰⁸

Thirdly, Imperial acted as mixed blend coordinator for Interprovincial. This task was described in the following way:

"To minimize possible month end carryovers of wrong component types by shippers, Interprovincial will advise the mixed blend crude coordinator (I.O.L. at present) by the 25th day of the current month, an estimate of the crude components which will be blended to the sweet and sour mixed blend stream in that month. This estimate will

TABLE 35
SUMMARY OF FEEDER PROFITABILITY:
AVERAGE OF ANNUAL RATES
 (%)

	<i>Period</i>	<i>SDRB</i>	<i>NEB (BT)</i>	<i>NEB (AT)</i>
<u>Standard Criterion</u>		<u>5%</u>	<u>18%</u>	<u>9%</u>
Gulf Alberta	1961-74	10.38	32.91	
Federated	1961-74	11.24	30.16	
Texex	1961-74		25.39	
Gibson-Bellshill	1961-74		69.85	
Cremona	1961-74	9.52	18.36	
Trans-Prairie	1961-74			
Imperial	1961-74	12.66	24.34	
Rainbow	1966-74	5.9	17.93	
Mitsue	1964-68			11.52
Rangeland	1961-74	7.14	19.30	
Pembina	1961-74		21.72	
Peace	1961-74	3.92	13.73	
Mid-Saskatchewan	1966-72	21.60	179.61	
Producers	1960-69			10.88
Westspur	1961-74			10.41
Bow River	1964-74		29.38	11.28
South-Saskatchewan	1961-74	11.26	33.94	16.74
Husky	1963-74			9.59
Blueberry-Taylor	1962-74			11.0
Westcoast	1962-74		17.8	

Note: see Table 27 for definitions

Source: Tables 27-33

be based on actual blending up to and including the 23rd day of the month plus a projection of stream quantities to be blended over the balance of the month. The coordinator will then approach the shippers as required, requesting an adjustment in either their sweet or sour input components to suit actual blending operations."

(Document # 11752-3, February 14, 1969, Interprovincial)⁶⁰⁹

Finally, Imperial handled the equalization accounts for the mixed blend stream as the following quotation indicates:

"Because of widespread interest in the price fluctuations of the Mixed Blend stream, it was suggested a presentation on the method of pricing this stream would be of value. Mr. Callaway stated Imperial would be willing to make a presentation on the price equalization methods used in pricing Western Canadian crude, explaining the procedures followed."

(Document # 11720, May 6, 1959, Interprovincial)⁶¹⁰

As a result of this activity Imperial collected substantial information on firms in the industry. Interprovincial provided Imperial (and no other shipper) with its daily stock report, its daily receipt report, its four month pumping forecast, and its monthly receipt/delivery statement (Document # 12099).⁶¹¹ As Interprovincial realized, this information gave “Imperial a competitive advantage” (Document # 12099).⁶¹²

Imperial acknowledged the advantage so gained; for it was able to determine the crudes that each of its competitors was using, their cost, and the products likely to be produced (Document # 139123-4).⁶¹³ In conjunction with its crude control, this information enabled Imperial to influence the crude costs of each of its competitors. In addition, because of its special position, it could anticipate shortages and build up its own inventories in Interprovincial at the expense of other firms and thus weather crises.

In addition to the four specific non-agreement functions referred to above that were delegated to Imperial, Interprovincial's dependence upon Imperial can also be found in the former's frequent reliance upon Imperial to make major decisions about its operations. The following excerpt indicates Interprovincial turned to Imperial when supply constraints threatened to cause problems:

“Mr. Heule [an IPL employee] advised on February 10 that inasmuch as Interprovincial was considerably exceeding its stated capacity to the Alberta Conservation Board of 915,000 b/d ex Cromer, *discussions were initiated with Imperial in Calgary as to what course of action should be taken.*

“For the past 7 to 10 days the throughput ex Cromer has been in excess of 950,000 b/d. Deliveries to date in February to Chicago have been about 75/80,000 b/d. It was Imperial's suggestion that deliveries to Chicago be increased by 15,000 b/d. . . .”

(Document # 5361, February 11, 1970, Interprovincial, emphasis added)⁶¹⁴

Three years earlier, Imperial played a similar role, advising Interprovincial on the nature of prorationing it should adopt during pipeline shortages:

“*The shortage situation in November through February based on keeping the U.S. market whole was reviewed with Imperial today.* Following this discussion, Mr. Heule [an IPL employee] was advised to provide all the Ontario shippers with a copy of the memo on this subject dated October 13, 1967, and to arrange for a meeting of the shippers in Calgary on October 20 for the purpose of ironing out the difference of opinions presently existing between the shippers on the propriety of the present nominations as well as to determine whether the Ontario shippers can afford to keep the U.S. market whole in November and December. Interprovincial will not participate in this meeting other than to provide information on our ability to transport oil in the months under consideration.”

(Document # 12010, October 17, 1967, Interprovincial, emphasis added)⁶¹⁵

This is another illustration of the intermediary role that Interprovincial played for Imperial. Even though it would not participate in any meaningful way, Interprovincial was the vehicle used by Imperial to call the meeting to arrive at an 'industry' solution.

Yet another source of information on the relationship between Interprovincial and Imperial can be found in internal communications within Interprovincial containing reference to the fact that action being contemplated was being done "with Imperial's knowledge" — a reference that implies discussion with and tacit approval by the latter:

"WE AGREE THAT IF THE WESTERN CANADIAN REFINERIES ARE NOT PRORATED WE COULD BE ACCUSED OF DISCRIMINATION. ACCORDINGLY, *WITH IMPERIAL'S KNOWLEDGE*, YOU ARE HEREBY AUTHORIZED TO PRO RATE ALL SHIPPERS INCLUDING THE WESTERN CANADIAN REFINERS ON THE SAME BASIS FOR THE MONTH OF NOVEMBER."

(Document # 12014, October 27, 1967, Interprovincial, emphasis added)⁶¹⁶

Both the formal control of Interprovincial by Imperial gained through share ownership and the various operating relationships between the two indicate that Imperial effectively controlled Interprovincial Pipe Line. Imperial used this relationship to its own advantage in several ways. First, Imperial found Interprovincial to be a convenient intermediary for discussions with other companies concerning the granting of access to special streams. Secondly, the operating rules that Interprovincial adopted favoured the firm that controlled it. The fact that storage tanks were assigned on a first-come, first-serve basis for special streams favoured that firm which first put such a stream together — in most cases, Imperial. The voting rule that was used to determine the composition of mixed blend streams also favoured the firm with the largest degree of control — once more Imperial. And, by setting a lower limit for Imperial than for other companies on the quantity of crude required before a special stream would be transported, Interprovincial engaged in blatant discrimination that favoured Imperial.

Therefore it is not surprising to find that Interprovincial's tariff policy was attuned to Imperial's interests. The three major tariff changes of Interprovincial after 1960 and the subsequent freeze in rates all favoured Imperial. The following document contains Interprovincial's analysis of the various shippers' interests in a tariff change that was contemplated in 1962:

"Attached are two exhibits showing the effect of a tariff reduction vs dividends on the earnings of I.O.L., B.A. and C.O.C., Interprovincial's shipper-owners. The first exhibit considers the effect of a tariff cut of 2¢ at Bay City and 2½¢ on all deliveries east thereof. The second exhibit considers the same tariff reductions but compounds the effect by eliminating Interprovincial's allowance oil as well. Under both considerations, it appears at the present time to be advantageous from the oil companies point

of view to pursue the tariff cut and/or reduction in oil allowance, although they are approaching a point where, in the future, it may be more advisable to promote Interprovincial dividends instead.

“It is obvious that shippers such as Sun Oil, Shell and Cities Service, with no financial interest in Interprovincial, will benefit directly from a reduction in the laid-down price of crude brought about by an Interprovincial tariff reduction. For Interprovincial’s shippers-owners, however, this reduction represents a mixed blessing bringing a corresponding reduction in Interprovincial dividend.

“The oil company’s gain is a function of the magnitude of the tariff reduction and/or the change in allowance oil. Their loss is a direct function of the corresponding reduction of the Interprovincial revenues. For this reason, Exhibits 1 and 2 are based on the relationship that oil company’s deliveries via Interprovincial bear to the total Interprovincial deliveries affected by the reduction. Although specific conditions have been assumed when developing these exhibits i.e. a 300,000 b/d delivery level east of Port Huron and a 500,000 b/d total Interprovincial delivery, the configuration of the curves is applicable to a broad range of delivery levels.

“The curves in the two exhibits are based on the consolidated income tax rates as recorded in 1961 Annual Reports. These income tax rates may vary dependent on what phase of oil company operations the tariff reductions are applied. The Interprovincial payout of earnings was taken at the 1961 rate of 91.5 percent.

“Exhibit 1 shows that I.O.L. deliveries, affected by a tariff reduction, must drop below 29 percent of the total deliveries effected [sic] by the reduction before it is to their advantage to accept Interprovincial dividends rather than the alternative benefit of the tariff cut. Presently, I.O.L. Sarnia deliveries represent about 35% of Interprovincial deliveries to Bay City and east and as a result the proposed tariff cut is presently to their financial advantage. By 1964, I.O.L. deliveries are forecast to reduce to about 30% of deliveries in the area affected, approaching the break-even point. With lower percentage ownerships of Interprovincial, it is even more to B.A. and C.O.C.’s advantage to agree with the proposed tariff cut.”

(Document # 4095, May 15, 1962, Interprovincial, emphasis added)⁶¹⁷

This document is particularly significant for two reasons. First, it indicates that up until the early nineteen sixties, Imperial was in a position where, it would have been in favour of a tariff reduction on long haul segments of Interprovincial. However, it is only on long haul routes that this condition existed. In 1962, Imperial accounted for only 28 per cent of Interprovincial throughput overall (Document # 4919),⁶¹⁸ but 35 per cent of the long haul traffic. Therefore Imperial’s proportion of the short haul traffic must have been less than 28 per cent. Since the above excerpt indicates that the break-even point for Imperial was 29 per cent of deliveries, “before it is to their advantage to accept Interprovincial dividends rather than the alternative benefit of the tariff cut” (Document # 4095),⁶¹⁹ it would have been in Imperial’s interest to have short haul tariffs set at comparatively high levels and long haul rates at relatively low levels in the early nineteen sixties.

Secondly, this excerpt shows that even for the long haul sections, Imperial's portion of total shipments was rapidly reaching the level where tariff reductions would no longer directly benefit it. Indeed, this is what occurred. By 1964, another Interprovincial analysis of a tariff reduction indicated that Imperial was essentially in equilibrium vis-à-vis a tariff reduction. Although it would have gained slightly more from a tariff reduction than it would have lost by way of dividends, the analysis noted that the competitive position of other companies would be improved by more than that of Imperial. Therefore the study concluded that the whole issue required further investigation "at a higher level", especially since Imperial's position was the most important from a "practical point of view". This document is quoted below at length:

"Further to P. & E. Report No. 47 of February, 1964 'Tariff Review', this memo reviews the advantages and disadvantages to Interprovincial's shipper owners and non-shipper owners of a 2% tariff reduction in 1965 compared to increased Interprovincial earnings and dividends. The following conclusions can be drawn from this review:

...

- "2. B.A. and Shell, shippers with small ownerships, are logical supporters of a tariff reduction.
- "3. To shippers with no Interprovincial ownership, such as Sun and Texaco, a reduction in Interprovincial charges represents entirely a gain. It follows that they stand to benefit more from a reduction in rates than the shipper owners whose advantage is offset by decreased Interprovincial dividends.
- "4. *Imperial Oil represents the most difficult situation to analyze, yet is the most important from a practical point of view. The after-tax benefit from reduced pipe line charges versus increased Interprovincial dividends about balances out. It then becomes important that a reduction in pipe line tariffs could help Imperial's competitors more than Imperial itself, and therefore it might be to Imperial's advantage to preserve the tariff structure at this time. This requires further investigation which could be carried out only at a higher level.*

...

"It is possible that Imperial could be helping competitors more than itself by pursuing a reduction in Interprovincial charges. For example, if the benefit of a tariff cut were to accrue to the Refining or Marketing Departments, not only B.A. and Shell, but also every other shipper would benefit more from a Corporate net income point-of-view.

"If the benefit of a tariff cut were to accrue to the Producing Department, the main beneficiary would be the independent oil producer. Most integrated oil companies, including Imperial and B.A., annually produce less oil than they consume, due to Alberta's pro-rationing system. As a result, less direct benefit would be gained from increased wellhead prices. On the other hand, with a backlog of expansion and development expenses, there could be tax advantages to applying incremental revenues to the Producing Department.

“SUMMARY:

From a practical point of view it is important to convince Imperial of the advantages of not pursuing a tariff reduction at this time, and Imperial represents the most difficult position to analyze. British American, Shell and non-owner shippers obviously prefer the tariff reduction alternative, while non-shipper owners would prefer higher Interprovincial earnings and dividends.

“The conclusion reached concerning Imperial’s position is less decisive and a firmer appraisal might best be accomplished through discussions at a higher level. It does appear, however, that reduction in pipe line charges might prove more advantageous to Imperial’s competitors and deteriorate Imperial’s competitive position. For this reason Imperial may find it advantageous not to pursue a tariff reduction at this time.”

(Document # 3977-8, March 25, 1964, Interprovincial, emphasis added)⁶²⁰

This excerpt is of interest because it points to the complexities of considerations that influenced the rate setting process. The complexity of the effects of high as opposed to low tariffs has already been alluded to. An evaluation of the trade-offs between high or low tariffs for any one company can be made either by assuming that the wellhead price of crude was fixed and that the pipeline tariff rate determined the refinery gate price for crude; or by assuming the refinery gate price was determined downstream by competition from other crude sources and that changes in the tariff rate would have affected the wellhead price; or by assuming that any changes in tariff rates would have no effect on either wellhead prices or downstream prices. The document quoted above implies that if downstream prices were fixed, Imperial would not have wished to have a higher wellhead price because of its position as a net crude purchaser. This document also suggests that if tariff cuts were not reflected in downstream prices, but simply accrued to the “Refinery and Marketing Departments”, then Imperial would have preferred to have had higher rather than lower prices. In both cases then, Interprovincial’s deliberations suggest that its major shareholder would have stood to gain from high tariffs.

Both scenarios analyzed by Interprovincial depend upon the existence of downstream market power. The analysis of the Canadian market contained in Volume II suggests this power existed. It was demonstrated therein that the Canadian crude price was determined by the export market in the U.S.; in particular by the competitive position of Canadian crude on the U.S. west coast. As long as the sum of the Alberta crude price that resulted and a tariff rate to the U.S. eastern markets incorporating only a reasonable profit margin left Canadian exports to eastern U.S. markets below U.S. prices, Interprovincial had leeway to increase its long haul tariff rates above this level. There would have been two constraints on the degree to which long haul tariff rates could have been increased. The first was the price delivered prices had to be left to provide an incentive for U.S. refineries to take Canadian crude. Secondly,

offshore product imports placed some constraint on tariff rates to Ontario since high product prices in Ontario led to increased imports and threatened the National Oil Policy. However, this constraint would not have applied to short haul movements to Prairie delivery points. This suggests there was more leeway to establish short haul tariff rates at high levels than there was for long haul rates.

There were two major tariff reductions for the Interprovincial system in the early nineteen sixties. Table 36 presents the tariffs before and after the changes as well as the percentage changes that occurred in the rates from Edmonton to points east. As can be seen, the change in 1963 decreased the long haul rates by more than the medium haul rates. Excluding the shortest route — Edmonton to Mildred — the average decrease for the points west of Bay City was 5.9 per cent; and for Bay City and east 7.1 per cent. The long haul rates were, therefore, favoured at the expense of the shorter routes. This coincides with Interprovincial's analysis of the tariff changes that would have benefited Imperial.¹

The tariff reduction in late 1964 was, except for the Edmonton-Buffalo segment, much more uniform in percentage terms. This was also in accord with Imperial's interests. For, as the previously quoted excerpt from Interprovincial indicated, Imperial had reached the position by 1964 where even on long haul movements, its best interests were no longer served by tariff decreases. However, the National Energy Board had expressed concern over the level of Interprovincial's earnings (Documents # 4897, # 4942).^{621, 622} Thus the 1964 IPL tariff reduction can be interpreted as a defensive gesture. That the short haul discrimination did not become worse can be attributed to the fact that Imperial's interests no longer favoured changes in relative tariff rates on long haul as opposed to short haul routes.

After 1964, no system-wide tariff revisions were implemented until 1972. Therefore, throughout this period, Interprovincial's tariff policy, corresponded with the interests of its majority stockholder — Imperial. Table 37 indicates that between 1962 and 1971 Imperial's throughput share fell to the point where high tariffs were optimum from its point of view.

Imperial's interest in maintaining high tariffs in this later period is confirmed by its 1971 analysis of proposed Interprovincial tariff changes. After evaluating the effect of a uniform percentage reduction in contrast to one that

1. Imperial had proposed reductions that accomplished this though the difference between short and long haul that Imperial suggested was even more pronounced than that implemented by Interprovincial. The average reductions for medium and long haul rates corresponding to the division used above in the text that was proposed by Imperial was 5.7 and 8.1 per cent respectively. (Documents # 3952, # 3926).^{623, 624}

TABLE 36
INTERPROVINCIAL RATE CHANGES, 1963, 1964

<i>Segment</i>	<i>Miles¹</i>	<i>Rates as of Nov. 1962² ¢/bbl.</i>	<i>Rates as of July 22/64³ ¢/bbl.</i>	<i>Rates as of Dec. 1/64⁴ ¢/bbl.</i>	<i>1963 revision % change</i>	<i>1964 revision % change</i>
Edmonton to						
Milden	289	17.5	16.25	15.8	7.1	2.8
Moose Jaw	411	22.0	20.75	20.4	5.7	1.7
Regina	438	22.5	21.25	20.7	5.6	2.6
Souris	655	29.0	27.25	26.7	6.0	2.0
Gretna	772	32.0	30.25	29.5	5.5	2.5
Clearbrook	909	35.5	33.25	32.5	6.3	2.3
Superior	1097	39.5	37.25	36.3	5.7	2.6
Bay City	1637	51.0	47.75	46.2	6.4	3.2
Detroit						
IPL portion	1732	47.0	45.70			
Buckeye portion	119	10.5	10.60			
Total	1851	57.5	56.30			
Sarnia	1742	52.5	49.25	48.0	6.2	2.5
Toronto	1898	56.5	52.25	51.0	7.5	2.4
Buffalo	1955	58.5	56.25	53.0	3.8	5.8

Notes: rates include allowance oil costs as per IPL.

- Source: 1. Document #3861, Interprovincial⁶²⁵
 2. Document #3952, Interprovincial⁶²⁶
 3. Document #3861, Interprovincial⁶²⁷
 4. Documents #3536, 3475, Interprovincial^{628, 629}

TABLE 37
**OWNERSHIP OF INTERPROVINCIAL
 VERSUS THROUGHPUT SHARES**
 (%)

<i>Company</i>	<i>Ownership</i>		<i>Throughput</i>	
	<i>(1962)</i>	<i>(1971)</i>	<i>(1962)¹</i>	<i>(1971)²</i>
Imperial	33	33	28	17
Gulf	7	7	15	8
Shell	0	2	12	12

- Source: 1. Document #4919, Interprovincial⁶³⁰
 2. Document #23347, Shell⁶³¹

reduced or eliminated the 'hump' in the tariff curve,¹ Imperial concluded that as long as wellhead prices could not be changed, its loss in dividends from any tariff reduction offset any cost reductions at the refinery level:

"Whether a tariff reduction is effected uniformly along the line, or by dehumping, the benefits to Imperial are more than offset by a reduced flow of dividends from I.P.P.L. unless the tariff reduction is large enough to warrant a crude wellhead price increase."

(Document # 112662, December 10, 1971, Imperial)⁶³²

The fact that Imperial, in the early nineteen seventies, considered an increase in wellhead prices in response to a pipeline tariff decrease when it did not do so during the nineteen sixties was the result of several factors. Volume II described how the competitive position of Canadian oil had improved in the early nineteen seventies. There was, therefore, greater leeway for increasing crude prices. In addition, there was a change in Imperial's self-sufficiency position. Imperial's self-sufficiency position had reached the point where a crude price increase with no downstream product price changes would actually have increased company profits (Document # 124219).⁶³³ Imperial calculated the value of passing on the tariff reduction to its refinery division to have been worth \$357,000. In comparison, Imperial estimated it would gain \$465,000 if the tariff reduction was passed back as a crude price increase (Document # 112633).⁶³⁴ As a result, when the tariff decrease was implemented on April 1, 1972 (a one cent per barrel decrease for long haul routes) Imperial simultaneously posted a one cent per barrel crude price increase (Document # 139208).⁶³⁵

In summary, Interprovincial's behaviour with respect to its tariff levels was consistent with its other policies. All benefited its major shareholder — Imperial. Imperial was able to utilize Interprovincial to reduce the extent of downstream competition in the refining and marketing sectors. How Interprovincial's tariff policy accomplished this requires further elaboration.

As noted earlier, the relative distribution of pipeline ownership and crude throughput for a company determines its interests in high as opposed to low tariff rates. If a company or group of companies share ownership in the same proportion as throughput, then any tariff policy affects all equally. Tariffs can be set high or low depending on where it is most advantageous from a tax viewpoint to record profits. However, if ownership and throughput are distributed in different proportions, the tariff rate will unequally affect the position of each firm. A firm that owns a larger percentage of a pipeline than it accounts for in total throughput on the pipeline would benefit, *ceteris paribus* from higher tariff rates. But even if ownership by the controlling firm is the same as

1. The hump made short-haul tariffs relatively more costly than long-haul rates when measured on a per mile basis.

that firm's share of throughput, it may not be indifferent as to whether tariff rates are high or low. If other firms own a lower percentage of the shares of a pipeline than the proportion of total crude they ship, the lead firm can, by increasing tariffs, increase the costs of these firms relative to itself. By doing so, an absolute cost entry barrier to downstream refining activities is created. The resulting advantage can serve as a useful reserve for disciplinary measures.

There are indications that this was a consideration in setting trunk line tariffs. For instance, in 1964, Montreal/Portland pipeline officials met with officials of the U.S. Department of Justice to obtain a ruling as to whether this pipeline was subject to the consent decree that limited the dividends that could be paid by U.S. pipelines. The purpose of this decree was to prevent the development of an absolute cost advantage such as that discussed above. Portland's earnings had reached the level where they were about to become excessive by consent decree standards. The pipeline wished to make certain that it was not subject to the decree. The following quotation indicates that one explanation that was voiced for the failure of this pipeline to reduce tariffs on the Portland system was the relative distribution of ownership of this pipeline as opposed to throughput:

"In response to Mr. Kilgore's [U.S. Dept. of Justice] questions, the Company's recent financial results were discussed, with particular reference to the upward trend of earnings, the improving cash position, the excess of 1963 earnings over 7% of valuation. . . .

"Mr. Kilgore wondered why the Company did not simply reduce its rates. *It was suggested that an explanation might be that the shipments were not in proportion to ownership.* . . . Mr. Karstead [Dept. of Justice] said he did not know of any other company earning in excess of 7%..."

(Document # 96784, July 16, 1964, Imperial, emphasis added)⁶³⁶

Elsewhere it was also appreciated that the relative costs of different shippers were affected by tariff changes. For instance, in 1967, Texaco requested a tariff reduction on Trans Mountain. Imperial observed:

"Although a reduction in Trans Mountain's tariffs would provide a slight net transportation benefit to Imperial (Ownership 8.6% versus Throughput 11% in 1967), Texaco and Shell would have much more to gain."

(Document # 92429, September 11, 1967, Imperial)⁶³⁷

There is evidence to suggest that these considerations led some pipelines to set tariffs at high levels to benefit their shipper owners. For example, South Saskatchewan Pipe Line imposed high short haul tariffs to keep crude along its line from being competitive at Canadian Canadian points. Further confirmation of the discretionary power wielded by this pipeline is provided by the high level of rates that is set. In the following excerpts, Interprovincial observed that the tariff rates on South Saskatchewan were higher even than the

short haul rates of Interprovincial — rates that Interprovincial admitted were “non-competitive”:

“Sample Interprovincial tariffs in cents/100 b-m, shown on Table 1, emphasize the non-competitive nature of shorter-haul movements. A longer 1742 mile movement from Edmonton to Sarnia is charged 2.87¢/100 b-m and a shorter 176 mile movement from Cromer to Gretna, 6.48¢/100 b-m. The consolidated average is 3.3¢/100 b-m. . . . Of interest also is that the 16” South Saskatchewan Pipe Line and the 16” Minnesota Pipe Line presently charge a healthy 7.8¢/100 b-m and 8.2¢/100 b-m respectively, (Exhibit 6). *However, part of these profits from these operations accrue to the shipper-owners.*”

(Document # 4165-6, November 1, 1965, Interprovincial, emphasis added)⁶³⁸

That the industry recognized the advantages accruing to certain shipper owners from high tariff rates is also borne out by the following excerpt pertaining to Trans-Northern — a product pipeline. Trans-Northern carried product shipments from Montreal to Ottawa and was owned equally by Shell Canada, Gulf Oil Canada, and Texaco Canada. In 1971, these firms considered limiting the shipments of Murphy, one of the more aggressive firms in the Ontario marketplace. Even if they were unable to do so, Shell noted that, because of the profit position of Trans-Northern, any shipment by this competitor would still give Shell a cost advantage because of its shareholder position:

“From a Trans-Northern profit and shareholder position, we at least stand to gain additional advantages as a result of this additional product through the line.”

(Document # 30984, September 2 1971, Shell, emphasis added)⁶³⁹

The excerpt quoted above concerning an Imperial owned pipeline to Winnipeg shows that Imperial also recognized the same advantages of pipeline ownership in creating a cost advantage for itself. (Document # 88743-4)⁶⁴⁰

Together these statements provide one explanation of why Interprovincial’s tariff rates after 1964 might have been kept high. Imperial, by countenancing a high level of earnings in Interprovincial during the mid-nineteen sixties, would have added another burden to those of the other refiners served by this pipeline. It should be remembered that prior to 1964 Imperial would have obtained more benefits from the transportation cost savings accompanying a tariff reduction than it would have lost in dividends. After 1964, it was exactly in balance. Thus, if Interprovincial had earned excess profits after 1964, these would not have been reflected in Imperial’s downstream crude costs. They would have been balanced by Imperial’s share of IPL’s dividends. This was not the case for other shippers. As a result, Imperial would have established an absolute cost advantage by not permitting tariff reductions after 1964.

Table 38 presents the history of Interprovincial’s profitability from 1950 to 1974. Columns III and V correspond closest to the NEB definition allowed in the Trans-Canada rate case. Column I presents the return on semi-depreciated rate base.

TABLE 38
PROFITABILITY OF INTERPROVINCIAL PIPELINE
 (%)

Col.	SDRB ¹	FULLY DEPRECIATED RATE BASE			INTER- PROVINCIAL CALCULATION OF NEB (AT) ⁷		
		Earnings ²	Earnings ² + Interest	Earnings ² + Interest + Deferred Taxes	IPL (Cons)	Lake head	ICC Lake head
	I	II	III	IV	V	VI	VII
1950		.2	.7	.7			
51		3.5	6.5	6.5			
52		4.2	7.0	7.0			
53		3.1	4.9	4.9			
54		3.0	5.4	7.3			
55		3.2	5.8	7.4			
56		4.6	7.1	8.5			
57		4.4	6.8	8.4			
58		5.8	8.2	9.5			
59	6.9	6.9	9.1	9.8			
1960	6.8	6.9	8.9	9.5	8.9	7.8	
61	7.0	7.3	9.4	9.8	9.5	9.2	
62	8.1	8.2	10.3	11.1	10.5	10.0	
63	8.5	8.4	10.4	11.8	10.1	9.3	
64	7.9	9.2	11.1	11.9	10.2	9.8	
65	8.7	9.7	11.6	12.4	10.7	10.9	
66	8.9(8.1) ⁴	9.9	11.7	11.9	11.9	11.8	
67	10.4				11.4	11.6	
68	9.8				9.7	8.3	12.0 ⁴
69	7.4				9.3	7.2	
1970	6.9(5.6) ⁴ (9.4; 5.7) ³	6.8 ³	11.1 ³		10.9	8.8	5.4 ⁴
71		7.9 ⁶	11.3 ⁶	13.0 ⁶	11.7	9.4	6.8 ⁴
72		8.3 ⁵	11.7 ⁵	13.9 ⁵	11.9	9.6	
73					12.7	11.0	
74					10.4	9.2	

Notes: For definitions see Table 27; Interprovincial basis is as close to NEB (AT) as possible; ICC is Interstate Commerce Commission basis.

Source: 1. Document #4823, Interprovincial⁶⁴¹
 2. Document #4951, Interprovincial⁶⁴²
 3. Document #22031, Shell⁶⁴³
 4. Document #112660, Imperial⁶⁴⁴
 5. Document #2950, Interprovincial⁶⁴⁵
 6. Document #2993, Interprovincial⁶⁴⁶
 7. Information collected by the Petroleum Inquiry.

It is evident from these figures that, from the very first, Interprovincial was a profitable operation. Between 1951 and 1961, the average return (earnings only) on fully depreciated rate base was 6.4 per cent; on earnings plus interest, it was 8.6 per cent. These returns were almost exactly what the NEB ruled as reasonable as of 1972.

Following the introduction of the National Oil Policy, IPL's rate of return on fully depreciated rate base escalated from 8.9 per cent (earnings plus interest) in 1960 to 11.7 per cent in 1966 (Column III). The rate of return calculated on a semi-depreciated rate base (SDRB) increased from 6.8 per cent in 1960 to 10.4 per cent by 1967 (Column I). It should be recalled that during the late nineteen sixties Imperial used a 5 to 6 per cent SDRB return in evaluating its acquisition of Rainbow Pipe Line. During this period Interprovincial recognized 3 per cent SDRB as the relevant figure in its evaluation of the possible entrant of a competitive pipeline into southern Saskatchewan. Peace River Pipe Line in 1964 adopted a maximum return of 5 per cent SDRB. Interprovincial's return is higher than these levels.

From 1967 to 1972, Interprovincial's rate of return on fully depreciated rate base remained relatively constant. There was a decline in 1968 and 1969, but it rebounded rapidly and reached 12.7 per cent in 1973 (Column V). The plateau in the rate of return in the late nineteen sixties is deceptive; for, in reality, the excess burden imposed upon Imperial's competitors by the high tariff rates actually increased. In analyzing the meaning of the rate of return for this period, it must be recalled that the rate of return is sensitive to very large capital expenditures. Large capital expenditures can cause the rate base return to decline even when the D.C.F. return remains high. Interprovincial's rate base return peaked in 1967 and declined thereafter because of the large building programme initiated to increase shipments to the Chicago market. Imperial, for instance, noted:

"I.P.L. has attained earnings levels as high as 6.6% return on fixed assets or 8.1% on S.D.R.B. in 1966. The rate of return has dropped since that time with the advent of heavy construction programs *although earnings have continued to increase.*"

(Document # 112660, December 10, 1971, Imperial, emphasis added)⁶⁴⁷

As early as 1967, Exxon recognized that supply shortages were going to develop in the United States and calculated that the most profitable source of imports from the point of view of its own organization would be from Canada (Document # 109006-7).⁶⁴⁸ It developed a course of action to help direct Canadian crude to the upper U.S. At the time this was developed, Exxon noted that certain difficulties lay in the way of this strategy:

"From a practical standpoint, it must be recognized that Canada cannot maintain a low production level for a number of years and then increase it sharply when the U.S. reaches maximum producibility. Some phase-in is required. Also,

unless this happens, the *existence of domestic pipeline facilities to the logical [sic] Canadian [sic] markets may favor the increased use of overseas imports rather than Canadian when a [sic] increase in imports is needed.*"

(Document # 109023, December 22, 1967, Imperial, emphasis added)⁶⁴⁹

Therefore it was decided that Humble (Exxon's U.S. domestic subsidiary) would "attempt in the course of crude and product purchase and exchange negotiations to draw domestic supplies away from the Northern Tier" and "encourage by participation or supply arrangements the construction of pipelines from Canada" (Document # 109023).⁶⁵⁰ In this latter regard, Exxon noted that "considerable progress has been in this direction in the last year, i.e., the Continental Billings line and the Chicago extension of inter-provincial [sic]" (Document # 109023).⁶⁵¹

Much of Interprovincial's large capital programme that took place in the late nineteen sixties was intended to enhance exports. The Chicago extension was not used extensively until 1971. Thus Interprovincial's earnings, which had continued to increase after 1967, would have yielded even larger rates of return if they had been applied to the rate base that was actually being used for transporting crude oil to eastern Canada. A lower limit on this rate of return is provided by the profitability achieved in 1967 just before the building programme — 10.4 per cent (before interest) on an SDRB basis — or about twice the acceptable rate.

Interprovincial's rate of return was recognized by both industry and shareholders alike to have been unusually high. As noted earlier, Interprovincial was not in a situation where losses in early years required profits in later years. From its beginning, Interprovincial was an extremely profitable venture. In 1957, a study of the Canadian pipeline industry reported that, since its inception, Interprovincial's common stock had appreciated 1333 per cent versus the average of Canadian industrials of only 115 per cent. This was in marked contrast to U.S. experience:

"A study of certain American companies indicates the appreciation [sic] on gas line and oil line stocks is closer to the industrial average rise -88% to 151% — in the same period."

(Document # 127401, March 4, 5 & 6, 1957, Imperial)⁶⁵²

Seven years later, a consultant engaged by Interprovincial to provide advice on the latter's response to the possibility of regulation warned Interprovincial that, by almost any standard then in existence, Interprovincial's earnings were above normal:

"If the formulae used for assessing a permissive level of earnings for Bell Telephone and C.P.R. were applied to your Company, your present earnings level would apparently be sufficient to meet your debt charges and provide a return of over 20% on the equity investment in your Company and a much higher percentage on the par value of the issued Common stock of your Company.

"In these circumstances, it is obvious that if any test is to be put before the Board it must be one different from that used for other regulated companies in the Federal field.

...

"I think that I could say without too much hesitation that either Bell Telephone or C.P.R. would be happy at the present time to have a permissive level of earnings in the area of 6% of the book value of their respective investments in their regulated enterprises. The level of earnings for your Company for the most recent year reported is over 12% of the book value of your investment in your regulated enterprise in Canada.

"As a percentage return on total investment in a company, this is high by any standard of comparison whether of regulated or unregulated companies, and would be considered very high in the area of most regulated companies. . . .

...

"Dr. Langum [another outside consultant hired by IPL] has prepared a convincing analysis of earnings of comparable companies to justify your present earning level, but even he has had some difficulties in reaching your level on a comparison basis."

(Document # 4945-6, March 11, 1964, Interprovincial)⁶⁵³

In 1967, Imperial also made reference to the high earnings level of Interprovincial. Occasioned by a request from a shipper for a reduction in a specific point to point short haul rate, Imperial noted as follows:

"I.P.L. could find it embarrassing to explain at a hearing the reason their short-haul tariffs are higher than other pipelines of comparable size-*particularly in view of their high earnings rate.*"

(Document # 91508, March 21, 1967, Imperial, emphasis added)⁶⁵⁴

Six years later, an Imperial study on the effects and need for regulation characterized the profitability of all three trunk pipelines as "phenomenally successful":

"Pipe line investment has been phenomenally successful from both a dividend and stock value point of view for the three major lines."

(Document # 95896, February 7, 1972, Imperial)⁶⁵⁵

Imperial was not the only major firm to recognize that Interprovincial's earnings were above normal. In 1970, Shell calculated the return on equity for Interprovincial as 24.0 per cent, for Trans Mountain as 29.0 per cent, and for Montreal/Portland as 12.8 per cent (Document # 22031).⁶⁵⁶ In contrast, Shell observed that a return of 14 per cent on equity was more than generous in light of earnings in other high risk industries: "even the high risk industries . . . earned less than 14% on equity on the average" (Document # 22030).⁶⁵⁷ In addition, Shell noted that IPL's earnings were high by other standards. Shell, in reference to Interprovincial, noted "IPPL's earnings have been well above the

returns experienced by similar companies in the U.S. (which are regulated by the Interstate Commerce Commission)” (Document # 21876).⁶⁵⁸

Even Interprovincial in its discussions with the National Energy Board admitted that, prior to 1972 its rate of return had been “substantial”:

“Dr. Howland [Chairman of the NEB] was pleased that we were reducing our tariffs effective April 1, 1972, and made it clear that the Board had not appraised the effect. He feels strongly that our earnings are higher than they should be and kept referring to the TransCanada decision and our return on ‘equity’. *We admitted that our rate of return was substantial. . . .*”

(Document # 4626, February 7, 1972, Interprovincial, emphasis added)⁶⁵⁹

In conclusion, Interprovincial’s earnings during the nineteen sixties were excessive. The effect of Interprovincial’s tariff policy would have been to further strengthen Imperial’s already dominant position.

Imperial, in its submission to the Royal Commission on Energy, presented a sample calculating the effect that high rates of return would have had on pipeline tariffs:

“The tariff established is very sensitive to the rate of return required on the capital involved. Again dealing with the example of a 350 million dollar pipe line, 1% net return after taxes on this total sum of money is equivalent to seven cents per barrel on a throughput of say, 275,000b/d.”

(Document # 90209, July, 1958, Imperial)⁶⁶⁰

A similar observation of the relationship between the rate of return and tariff rates was made by Imperial vis-à-vis Trans Mountain in 1968:

“A 1¢/barrel reduction in tariff ex Edmonton and Edson in 1968 would result in a reduction of 0.3% in the rate of return.”

(Document # 92430, September 11, 1967, Imperial)⁶⁶¹

The effect of Interprovincial’s high profits cannot be analyzed without reference to its tariff curve. Interprovincial served three markets: the Prairies, Ontario, and the American states from New York through to Illinois and Michigan. Its discretionary power differed substantially in each. Ontario was protected, though not fully, by the National Oil Policy after 1961. The U.S. market provided the marginal source of expansion in demand for Canadian production, and throughout the nineteen sixties Canadian crude was under-priced compared to American crude in the eastern U.S. market by between 20 to 30 cents per barrel. Like the Ontario market, there was, therefore some leeway for extracting higher than normal tariff rates in the eastern U.S. market. The Canadian west, however, was the one market that had the fewest alternatives since it was so far from tidewater and foreign crude imports. This suggests that monopoly power at the pipeline level, if exercised, would have increased the short haul tariffs that served this market — relative to long haul tariffs.

Figure 9 depicts Interprovincial's tariff curve in the early nineteen sixties. It contains a pronounced hump; i.e., it was not linear. A linear tariff curve is generated when there is a fixed charge accompanied by a constant per mile variable charge. A humped tariff schedule is generated when a fixed charge is accompanied by a declining per mile charge. The latter increases the spread between the short and long haul per mile rates compared to the former.

At issue is the extent to which the actual spread between short haul and long haul rates was justified. In 1964, Husky complained of "an inequity in the rates charged" since the rate from Edmonton to Hardisty was not "in proportion with rates to other points" (Document # 12360);⁶⁶² Interprovincial, in reply, resorted to the fixed cost argument:

"As is the case with most pipe line companies, Interprovincial's tariff structure incorporates a basic charge to cover fixed administrative and general costs and the cost of receiving the oil into the system and delivering it out. This charge is the same regardless of the distance the oil is transported. Special consideration also had to be given the Ontario market when our system was extended to Ontario in 1953. . . . The combination of these two things results in a tariff curve rather than a straight line.

"Admittedly this results in the short haul shippers paying a higher rate per mile than the long haul shippers. But as long as substantially greater volumes of oil are delivered in Ontario than in closer markets, it can be clearly demonstrated that if it were not for the long haul movements the short haul tariffs would have to be substantially higher than they are."

(Document # 12358, December 10, 1969 Interprovincial)⁶⁶³

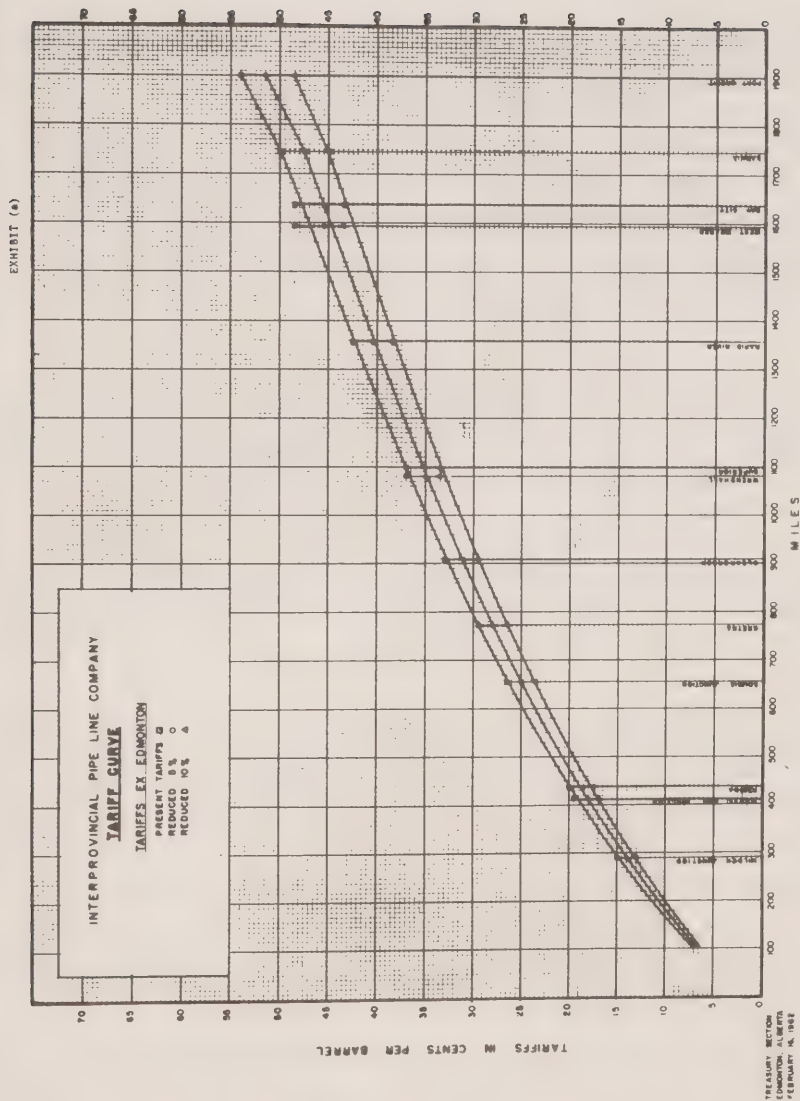
The theory behind Interprovincial's argument is correct. When economies of scale exist, price discrimination may be justified, but only if the resulting price to all users is no higher than if they were served by separate installations. The fallacy in Interprovincial's argument is that this was not the case. Short haul tariffs were above the level that an efficient sized pipeline designed exclusively for these movements would have cost.

Interprovincial and Imperial, in their internal memoranda, admitted this on several occasions. In the nineteen sixties, Interprovincial was confronted with the possibility that a new short haul pipeline would be built from Minnesota into southern Saskatchewan. This pipeline would have competed with the movement of crude via the the existing South Saskatchewan, Interprovincial and Minnesota pipelines. The following excerpt indicates that Interprovincial was aware that it was in a "vulnerable competitive" position because its short haul tariffs were higher than those of an efficient smaller diameter line that could service the area:

"The owners of Minnesota Pipe Line have requested a reduction in Interprovincial's surcharge on Fosterton type crudes to St. Paul refineries. Otherwise they propose building an extension from the west end of the Portal Pipe Line system to Regina, thereby providing a more attractive transportation system for these volumes. There is little doubt that this represents a serious overture on their part.

ADA0 1835

FIGURE 9



4131

(Reproduction of Document # 4131
'Figure 9' added)

"This review is undertaken in two steps. First of all, it investigates whether the increased capacity required and higher operating costs justify a 15% surcharge on heavy crudes. The conclusion reached is that the surcharge is justifiable. The second step reviews the competitive position of Interprovincial's Regina to Clearbrook tariff for Fosterton crudes as compared to tariffs via the proposed system. *The conclusion reached in this instance is that Interprovincial is in a vulnerable competitive position on this short-haul movement due primarily to the configuration of the tariff curve.* . . .

. . .

"As detailed later, the most significant feature to emerge from this portion of the review is that *the high short-haul tariff Regina to Clearbrook does not reflect the economies of a large-diameter system.* As a result, Interprovincial is in a vulnerable competitive position relative to the extension proposed by the Minnesota group. It is the configuration in the tariff curve, not the heavy crude surcharge, which is jeopardizing this position, and has been brought about by competitive crude situation in Eastern Canada and the United States. Should the Minnesota group strongly pursue their proposal and subsequently obtain an N.E.B. hearing on the International section, it would be difficult to prepare a convincing intervention on what in effect is a more attractive transportation system.

. . .

"Under comparable operating and profit levels, oil moved in a 16"-diameter line over 550 to 600 miles should not be competitive tariff-wise with Interprovincial's larger-diameter, short-haul transportation from Regina to Cromer. However, the present Fosterton tariff from Regina to Clearbrook via the IPL/LPL system is 25.3¢ compared to a tariff via Minot of 30.8¢ (6% return), 23.8¢ (3% return) and 16.9¢ (no profit), (see Exhibit 6). Interprovincial's high 5.35¢/100 b-m short-haul tariff from Regina to Clearbrook is a prime contributor to the situation. For a 6% return, a comparable 80,000 b/d Portal movement requires 4.3¢/100b-m and a 55,000 b/d volume through the new extension, 6.1¢/100 b-m.

. . .

"Sample Interprovincial tariffs in cents/100 b-m, shown on Table I, emphasize the non-competitive nature of shorter-haul movements. A longer 1742 mile movement from Edmonton to Sarnia is charged 2.87¢/100 b-m and a shorter 176 mile movement from Cromer to Gretna, 6.48¢/100 b-m. The consolidated average is 3.3¢/100 b-m."

(Document # 4163-5, November 1, 1965, Interprovincial, emphasis added)⁶⁶⁴

An estimate can be derived of the magnitude of the extent to which Interprovincial's charges did not reflect "the efficiency of a large volume, large diameter pipe line system" (Document # 4161).⁶⁶⁵ IPL's tariff on Fosterton for the 471 miles from Regina to Clearbrook was 25.3 cents per barrel or 5.37 cents per barrel-mile. IPL's estimate for the cost via the alternative line of 590 miles was 23.8 cents per barrel or 4.03 cents per barrel-mile.¹ It should be pointed out that

1. This is the estimate using a 3 per cent return on capital — a rate which, it has already been demonstrated, was considered as the relevant opportunity cost of capital by Interprovincial.

Interprovincial acted upon its belief in the appropriateness of its estimate and granted a reduction to 24 cents per barrel in its Regina to Clearbrook tariff. Therefore, using this standard, Interprovincial's short haul rates were some 30 per cent above what a pipeline designed just for short haul movements would cost.

Interprovincial's reduction of the tariff rate from Regina to Clearbrook to 24 cents per barrel still left its rate per barrel-mile (5.1¢) above the rate per barrel-mile that it calculated for the alternative route. Some two years later, the same companies which had successfully challenged IPL's short haul rates in 1964 developed a proposal for an even larger line. This time Interprovincial's estimates indicated the alternative route would cost only 20.7 cents per barrel compared to its own 24 cents per barrel tariff. Accordingly a 4 cent per barrel tariff reduction was granted (Document # 3523).⁶⁶⁶ This brought Interprovincial's short haul tariff for this movement close to the level of 4.03 cents per barrel-mile which it had calculated as reasonable some two years earlier.

Both Interprovincial and Imperial recognized that Interprovincial's short haul tariffs "could not be readily defended." Interprovincial's Board of Directors were told that:

"... if Northern files an application with the National Energy Board to construct the Canadian portion of the proposed pipeline system and if Interprovincial intervenes, the Company's present tariff rate structure for its short haul shippers could not be readily defended. . . .

...

"From the data submitted to the meeting it is apparent that Interprovincial's short haul tariffs are high in relation to its long haul rates and higher than other pipe lines of comparable size;..."

(Document # 3548, March 21, 1967, Interprovincial)⁶⁶⁷

Imperial Oil shared this view — that Interprovincial's short haul rates were untenable if closely scrutinized by regulatory authorities. Equally important, Imperial pointed out that the short haul rates were untenable in light of IPL's high earnings rate; high short haul tariffs were not required to subsidize long haul rates:

"At Interprovincial's current tariffs, the Northern Pipe Line principals have a real incentive to construct the line to lower the cost of crude to their refinery."

(Document # 91514, March 2, 1967, Imperial)⁶⁶⁸

"As indicated in Pipe Line Division's memorandum of March 2/67, there is no doubt but that Northern have a sound proposal based on I.P.L.'s existing tariff.

"We believe the NEB would find it difficult to support I.P.L.'s claim for an effective monopoly if they are unwilling to consider posting competitive tariffs."

(Document # 91508-9, March 21, 1967, Imperial)⁶⁶⁹

"I.P.L. could find it embarrassing to explain at a hearing the reason their short-haul tariffs are higher than other pipelines of comparable size-particularly in view of their high earnings rate."

(Document # 91508, March 21, 1967, Imperial, emphasis added)⁶⁷⁰

Table 39 summarizes the history of Interprovincial's tariffs on the Regina to Clearbrook section in the mid-nineteen sixties. The existence of a potential rival led to decreases of some 14 per cent in the rate for light crude and 20 per cent for heavy crudes for this route between 1965 and 1967. These concessions were not granted elsewhere on Interprovincial's system. The rate structure, which remained in effect from 1965 to 1972, is outlined in Table 40. Other short haul tariffs were kept above the rates that Interprovincial implemented between Regina and Clearbrook. Interprovincial, therefore, exploited its monopoly position to set comparatively high rates for short haul deliveries.

TABLE 39
TARIFF RATES
REGINA TO CLEARBROOK

	<i>Actual Fosterton Rate</i>		<i>Fosterton Light Crude Equivalent^a</i>		<i>Light Crude</i>		
	<i>¢</i>	<i>¢/b-mile</i>	<i>¢/b-mile</i>	<i>Index</i>	<i>¢/b</i>	<i>¢/b-m</i>	<i>Index</i>
1965	25.3 ¹	5.3715	4.6709	100.0	21.7 ⁴	= 4.6072	100.0
1966	24.0 ²	5.0955	4.4309	94.9	21.7 ⁵	= 4.6072	100.0
1967	20.0 ³	4.24628	3.6924	79.1	18.7 ⁶	= 3.9703	86.2

Note: (a) Since IPL imposed a penalty of 15 per cent for heavy crude this rate is used to transform the Fosterton tariff to a light crude equivalent.

- Source: 1. Document #4165, Interprovincial⁶⁷¹
 Document #4160, Interprovincial⁶⁷²
 2. Document #4157, Interprovincial⁶⁷³
 3. Document #3523, Interprovincial⁶⁷⁴
 4. Document #4161, Interprovincial⁶⁷⁵
 5. Document #4157, Interprovincial⁶⁷⁶
 6. Document #3523, Interprovincial⁶⁷⁷

The effect of this distortion would have been felt mainly in the Prairie markets. Refineries such as those of Husky, Consumers' Co-op, Gulf, and Shell, all of whom had less ownership in Interprovincial than their share of shipments, would have had their refinery crude costs increased relative to Imperial. Shell outlined its perception of the resulting disadvantage that it faced. In discussing the effect of the hump in Interprovincial's tariff curve, Shell noted, in 1971, that the hump in the tariff curve increased its crude costs at Winnipeg by about 3 cents per barrel above what they should have been.

TABLE 40
SHORT HAUL RATE STRUCTURE
(1964-1972)

<i>Miles</i>	<i>Rate hundred /bbl-mile</i>
59	13.559
71	11.268
109	7.798
176	6.477
180	6.444
193	6.684
217	6.037
220	6.000
289	5.467
302	5.596
313	5.335
329	5.228
334	5.210
411	4.964
437	4.737
438	4.726
471*	4.607* (3.9703+) (3.6924)
484	4.649
501	4.491
546	4.359
554	4.332
642	4.174
655	4.076
659	4.067
663	4.057
691	3.994
761	3.837
772	3.821
800	3.763
862	3.701
879	3.629
909	3.575
919	3.558
971	3.522
988	3.462
996	3.534

Notes: * prior to reduction on Regina to Clearbrook in 1967 (see Table 39)

+ light crude rate Regina to Clearbrook after 1967 (see Table 39)

light crude equivalent for heavy crude Fosterton rate after 1967 reduction (see Table 39)

"IPPL intends to retain the 'hump' in its tariff curve as indicated in Exhibit 6. This hump, which penalizes Prairie deliveries, was previously challenged successfully by Great Northern in 1966..."

(Document # 21876, December 13, 1971, Shell)⁶⁸⁰

"Shell should push for complete elimination of the hump, if there is to be any alteration of IPPL's tariffs. Such elimination would reduce the tariff on crude shipments to Winnipeg by about 3.0¢ per barrel (compared to the 1.7¢ per barrel reduction proposed in IPPL's letter), thus improving our ability to competitively operate St. Boniface refinery in the Manitoba market in the late 1970's."

(Document # 21877, December 13, 1971, Shell)⁶⁸¹

Shell's estimate corresponds closely to the 3 cents per barrel reduction granted in the light crude tariff between Regina and Clearbrook.

There is another way of evaluating the effect that Interprovincial's excessive earnings had on pipeline tariffs. The excess earnings can be calculated and then translated into a cost per barrel-mile for different routes. Since the profitability of Interprovincial's U.S. section — Lakehead Pipeline — and the remainder of the system differed considerably, each must be dealt with separately. Table 41 lists the rate of return calculated for each part of the system as well as for both systems together.

TABLE 41

INTERPROVINCIAL SYSTEM AND COMPONENT
COMPANY PROFITABILITY, 1972
(%)

Company	Return on Fully Depreciated Rate Base			Return on Valuation Basis ICC for Lakehead, SDRB for Interprovincial		
	Earnings	Earnings + Net Interest	Earnings + Net Interest + Deferred Taxes	Earnings	Earnings + Net Interest	Earnings + Net Interest + Deferred Taxes
Consolidated ¹	8.29	11.70	13.87	7.02	9.91	11.75
Interprovincial ² (Canadian)	12.06	16.01	17.62	9.45	12.55	13.82
Lakehead (U.S.) ³	6.02	9.55	12.35	5.45	8.64	11.17

Source: Documents #2950¹, #2956², #2962³, Interprovincial^{682, 683, 684}

It is evident from Table 41 that, as of 1972, Inter-provincial's Canadian segment was more profitable than its American segment. Using this information it is possible to construct an estimate of the effect of high profit levels on the tariff structure. This is done in Table 42.

In Table 42, 1 per cent excess rate of return is translated into a cent(s) per barrel-mile basis (row 7(a)) for Interprovincial as a whole and for its two segments — Interprovincial as a corporation, and Lakehead. On the assumption that all rates were equally distorted when measured on a barrel-mile basis, the actual excess rate of return above 9 per cent (the NEB standard) reported in Table 42 can be translated into a cents per barrel figure applicable to different route lengths (row 7(c)).

TABLE 42
THE EFFECT OF INTERPROVINCIAL'S
EXCESS RETURNS ON THE TARIFF STRUCTURE
(1972)

	<i>Lakehead</i>	<i>Interprovincial (Corporation)</i>	<i>Interprovincial (Consolidated)</i>
1. Depreciated Rate Base ^A (\$10 ³)	254,242	217,272	483,637
2. 1% of Rate Base (¢10 ³)	254,242	217,272	483,637
3. Bbl-miles ^B (10 ⁶)	297,336	276,284	573,456
4. Operating Revenue/ 100 bbl-miles (¢) ^B	2.55	3.23	2.86
5. Operating Revenue (¢10 ⁴)	758,206.8	892,397.3	1,640,084.1
6. 1% of rate base divided by operating revenue	.03353	.02435	.02949
7.(a) Reduction in operating revenue/100 bbl-miles made possible by 1% reduction in return (¢) (row 6 × row 4)	.085	.079	.084
7.(b) TRANSLATION INTO Per BBL figure (¢/100 bbl-mile)			
400 miles	.34	.31	.34
600 miles	.51	.47	.51
1000 miles	.86	.79	.84
1800 miles	1.54	1.42	1.52
7.(c) CORRECTED FOR RETURN IN EXCESS OF 9% ^B and translated into before tax ^A (¢)			
400 miles	.37	4.35	1.84
600 miles	.56	6.59	2.75
1000 miles	.95	11.08	4.54
1800 miles	1.69	19.91	8.21

Notes: A. In accord with Imperial's practice in Document #90209, Imperial⁶⁸⁵

B. See TABLE 43 for source.

Source: A. Documents #2961, 2955, 2949, Interprovincial^{686, 687, 688}

B. Document #12891, Interprovincial⁶⁸⁹

This analysis yields very different results for Interprovincial's two segments. For the corporation as a whole, a stage length of some 400 miles was subject to a 1.8¢/bbl. overcharge; for Interprovincial as a corporation, it was 4.9 cents and for Lakehead .4 cents.

These calculations assume that the tariffs for all stagelengths in each section were equally distorted. However, it has already been suggested that short haul rates were distorted more than long haul rates. Therefore, the analysis requires that each be treated differently.

The rate of return statistics for Lakehead indicate that long haul rates were close to costs. Most of Lakehead's revenue came from the division of the tariff earned on long distance hauls between Interprovincial and Lakehead. Therefore the excess return that Lakehead earned on long haul routes (between 1000 and 1800 miles) should be reasonably representative of the effects of Interprovincial's earning results on these routes. In contrast, Interprovincial, as a corporation, received its portion of long haul rates as well as the full amount of short haul rates of crude delivered on the Prairies. Thus, the long haul estimates reported in Column II for Interprovincial should be about the same as for the Lakehead. Since they are not, it is clear that the assumption used in preparing this Table over estimated the distortion on the long haul routes. This implies the distortion in the short haul rates reported in Table 42 was understated. Even so, the distortions reported on the shorter routes do provide a lower estimate of the effect of the distortion caused by excessive profitability on these routes—4.9 cents on a 400 mile segment; 6.7 cents on 600 miles. Thus the effect of Interprovincial's inordinate earnings level would have been to penalize Prairie refineries by at least 5 cents per barrel.

(ii) *Montreal/Portland*

The Montreal/Portland pipeline was in a different position than the other two major Canadian trunklines. It did not link protected North American markets to Canadian producing areas. Instead, it provided the primary route by which foreign crude reached the major refining centre at Montreal. Nor did it enjoy the same monopoly position. Although less expensive than alternate marine transportation for crude, the pipeline did not have a monopoly in the Montreal market since the latter was open to direct shipments via the St. Lawrence River. This suggests its discretionary power was limited.

Nevertheless, Volume III has demonstrated that the response of this market to competitive forces that had developed in the world was relatively imperfect. It shows that high crude costs had the effect of keeping product prices high. Therefore there is the possibility that the tariff policy of the Montreal/Portland pipeline might have been used to exacerbate the problem described in the Volume on International Linkages. Ownership in the Montreal/Portland pipeline may have been used to keep tariff levels at a high level in order to enhance entry barriers.

Reinforcing this possibility was the distribution of pipeline ownership. The concentration of ownership relative to the concentration of imports of crudes would have provided the incentive to maximize tariffs. Table 43 com-

pares each pipeline owner's percentage of ownership in the pipeline to its percentage of refinery capacity in Montreal and to its share of crude imports into Quebec. It reveals that, as was the case with Interprovincial Pipe Line Imperial owned a larger percentage of the pipeline than either its share of total refinery capacity or its share of total crude imports. This suggests that here, as elsewhere, Imperial may have had an incentive to encourage high tariffs.

TABLE 43

A COMPARISON OF PERCENTAGE OWNERSHIP IN MONTREAL/
PORTLAND PIPELINE TO THE DISTRIBUTION OF MONTREAL
REFINERY CAPACITY AND QUEBEC CRUDE IMPORTS

<i>Company</i>	<i>Percentage ownership (1966-1974)</i>	<i>Percentage Refinery (1966)</i>	<i>Montreal Capacity (1974)</i>	<i>Percentage of Crude Imports to Quebec</i>	
				<i>(1966)</i>	<i>(1973)</i>
Imperial	32	28.8	21.2	24	18
Gulf	16	13.7	13.3	19	12
Shell	16	18.9	22.6	18	20
Texaco	16	17.9	13.4	13	11
Petrofina	10	9.1	14.7	11	11
British Petroleum	10	11.6	14.7	12	8

Source: Petroleum Refineries in Canada, January 1966, January 1974,⁶⁹⁰ and information collected by the Petroleum Inquiry.

Support for this position is contained in a document describing a July 1964, meeting between officials of the Montreal/Portland pipeline and the U.S. Department of Justice. Since Portland Pipe Line's (the American portion of Montreal/Portland) earnings were in excess of those allowed under a consent decree, an attempt was made to reach an understanding with the U.S. Justice Department that Portland was not subject to the consent decree. In response to a query as to why rates were just not reduced, "it was suggested that an explanation might be that the shipments were not in proportion to ownership" (Document # 96784).⁶⁹¹

Table 44 presents the profit history of the Portland pipeline (the U.S. section), the Montreal pipeline (the Canadian section), and the combined companies from 1960 to 1974. Columns I, III, and VI contain the rate of return for the fully depreciated rate base after tax. Columns II, IV and VIII contain the rate of return on an NEB basis (before taxes). Between 1961 and 1971 the return on fully depreciated rate base averaged 7.3 per cent for Portland but 12.6

per cent for Montreal, and 8.03 per cent overall. Column VII contains the Portland return calculated using the Interstate Commerce Commission (ICC) rule. Except for 1965 it falls within the ICC guidelines.

The figures in Table 44 show that where the pipeline was subject to quasi-scrutiny — on its American section — the rate of return earned fell within the normal regulated limits. In the case of the Canadian section, the pipeline used its leverage to earn an average 75 per cent more than was permitted in the United States.

TABLE 44
PROFITABILITY OF MONTREAL/PORTLAND

<i>Montreal Pipeline (Consolidated)</i>		<i>Montreal</i>			<i>Portland</i>			
<i>Return after taxes on Rate Base, Pipeline¹</i>	<i>NEB Before Taxes, Pipeline⁴</i>	<i>Return* after taxes on Rate Base, Pipeline²</i>	<i>NEB Before Taxes, Pipeline⁴</i>	<i>IOL NEB B.T.</i>	<i>Return* after taxes on Rate Base, Pipeline³</i>	<i>ICC after taxes⁴</i>	<i>NEB B.T. Pipeline⁴</i>	<i>IOL NEB B.T.</i>
<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>	<i>VIII</i>	<i>IX</i>
1955								
56								
57								
58								
59								
60	16.29		22.11	19.5		4.90	14.07	11.7
61	5.45	10.57	10.25	21.28	20.0	4.34	2.41	6.77
62	5.88	11.23	10.96	21.25	19.7	4.85	2.84	7.97
63	10.75	23.13	15.82	32.81	32.1	10.61	6.98	20.14
64	10.04	22.40	16.16	33.29	33.3	9.46	6.94	19.13
65	6.79	13.75	9.78	19.62	19.6	6.62	7.17	11.90
66	8.20	14.59	11.76	20.74	20.7	7.77	6.88	12.65
67	7.92	13.89	11.49	19.91	19.9	7.40	6.42	11.91
68	8.10	14.23	12.51	22.56	22.5	7.13	5.84	11.31
69	8.19	14.82	12.73	23.47	23.2	7.26	5.80	11.87
70	8.56	16.12	12.94	25.25	24.3	7.78	6.24	12.95
71	8.48	15.94	14.63	26.76	26.5	6.98	5.73	11.97
72		15.97		26.90	26.2		5.45	12.00
73		16.31		29.11	28.8		5.03	11.77
74		14.04		27.65	27.0		3.65	9.19

Note: *Rate base is defined as average investment in plant less depreciation plus inventory plus cash working capital.
Return revenue includes interest expense; other definitions as before.

Source: 1. Document #22022, Shell⁶⁹²
2. Document #22024, Shell⁶⁹³
3. Document #22023, Shell⁶⁹⁴
4. Information collected by the Petroleum Inquiry

When the pipeline's own figures (Document # 22022-4)⁶⁹⁵ are used to compute the return on semi-depreciated rate base, the 1961-1971 average for the Portland segment is 7.3 per cent, for Montreal 12.6 per cent and for the

system as a whole 8.0 per cent. Compared to the 5 per cent standard used by Imperial, by Producers, by Mobil for Rainbow, and the 3 per cent used by Interprovincial to assess the viability of the Northern pipeline, the figures for the Montreal segment are high.

(iii) *Trans Mountain*

Trans Mountain Pipe Line was the major trunkline connecting Alberta to British Columbia and the State of Washington. Like Interprovincial, it had a virtual monopoly over its route. Four major companies enjoyed equal shares in the company though they did not own 100 per cent of this firm. Unlike both Interprovincial and Montreal/Portland, Imperial was not the predominant shareholder in Trans Mountain. In 1975, Texaco owned 33 per cent while Gulf, Imperial, Shell, and Standard of British Columbia each owned 8.6 per cent.

Trans Mountain had less leeway than Interprovincial in setting its tariffs because of the competition Alberta crude faced from other crude sources both in Vancouver and in Washington. Throughout the late nineteen fifties and early nineteen sixties, Canadian crude was the marginal supplier on the U.S. upper west coast. Canadian exports to this region depended on international crises and the U.S. import quota programme. Therefore export sales were uncertain and subject to fluctuations. As late as 1966, this situation still prevailed. The following excerpt comments on a request by some companies for a tariff reduction on crudes destined for this area:

“Alberta crude is reportedly in a tight competitive position in Washington State and Vancouver. Apparently deliveries to the State of Washington provide only a marginal netback to Canadian operations and B.C. crude is providing increased competition for Alberta production in Vancouver. Companies like Shell see elimination of the 0.6¢ Interprovincial surcharge as a potential area for reducing costs and improving profits. It is questionable however that this 0.6¢ reduction [in Redwater tariffs] would have a significant impact on the competitive West Coast situation.”

(Document # 4014, February 7, 1966, Interprovincial)⁶⁹⁶

This suggests that a prime determinant of Trans Mountain's tariff policy for much of the period under examination would have been the need to maintain the delivered price of Canadian crude at competitive levels in American export markets.

Table 45 contains the history of Trans Mountain's profitability from 1953 to 1974. It indicates that during the nineteen fifties, Trans Mountain's returns were highly volatile. However, in the nineteen sixties this changed. From 1960 to 1970, the rate of return (SDRB basis after interest and tax deductions) averaged 7.8 per cent. Examination of Column V shows that between 1964 and 1974, the before tax rate of return on fully depreciated rate base (NEB basis) was consistently over 20 per cent — averaging 32.87 per cent.

TABLE 45
PROFITABILITY OF TRANS MOUNTAIN

	<i>Return after tax SDRB</i>		<i>Return After Tax Fully Depreciated Rate Base²</i>		<i>NEB before taxes</i>
	<i>I (4)</i>	<i>II (1)</i>	<i>Yearly Cumulative III</i>	<i>IV</i>	<i>V (5)</i>
1953		-1.0	-.95	-.95	
54		-2.5	-2.54	-1.75	
55		3.2	4.98	.49	
56		7.0	7.43	2.24	
57		6.4	6.77	3.36	
58		0.0	-0.12	2.66	
59		1.2	1.37	2.46	
60		2.6	3.02	2.53	7.86
61		4.9	5.68	2.89	13.86
62	6.4	6.4	7.59	3.35	17.51
63	5.7	5.7	6.96	3.66	16.62
64	7.7	7.7	9.62	4.12	21.63
65	7.8	7.8	10.08	4.52	22.08
66	8.8	8.8	11.50	4.96	25.53
67	10.9	10.9			30.19
68	8.7	8.7			27.14
69	10.2				32.05
70	11.8	12.0 ³	17.5 ³		40.16
71					39.49
72					45.99
73					39.46
74					37.86

Note: Columns I & II exclude working capital from rate base.

Source: 1. Document #92236, Imperial⁶⁹⁷ Nov. 4, 1969—source Trans Mountain
 2. Document #92423, Imperial⁶⁹⁸ Oct. 30, 1967—source Trans Mountain
 3. Document #22031, Shell⁶⁹⁹ (after interest); 19.5 before interest on NEB, 13.4 on SDRB
 4. Document #92246, Imperial⁷⁰⁰
 5. Information collected by the Petroleum Inquiry

To place these figures in perspective, it should be recalled that the industry generally used 5 per cent as a reasonable rate on an SDRB basis and that the NEB decision in the Trans-Canada case translated to an 18 per cent return before tax at maximum. Therefore, throughout the nineteen sixties and early nineteen seventies, Trans Mountain's rate of return was higher than these levels.

There are several references that indicate some firms were well aware of this situation. For instance, in 1967, a letter was sent by Imperial to Trans

Mountain's Board of Directors. It stated that Trans Mountain was then considered to be the "highest return line in North America" and suggested that in view of the existing tariffs, a new competitive line might be built:

"At the Trans Mountain Board Meeting which was held on November 17, when discussing Kinnear's [Texaco] request for a reduction in tariff, I mentioned that Trans Mountain should have a rate structure sufficiently low to discourage the establishment of a competitive new pipe line.

...

"Despite these apparent advantages of a direct route, I would think that Trans Mountain with its existing line and throughput, could be quite competitive with an entirely new venture. If Trans Mountain continues to be known as the highest return line in North America, I doubt that it will be given the opportunity to offer competition until plans for a new facility have been well developed. If this should happen, Trans Mountain may well lose a real opportunity for development."

(Document # 92405, November 21, 1967, Imperial)⁷⁰¹

Two years later, Texaco made a request for a tariff reduction. The following excerpt indicates that an Imperial officer believed a tariff reduction was justified:

"You forwarded to us, for comment, Texaco's letter of September 29 to Mr. E.C. Hurd requesting tariff reductions between Edmonton and Anacortes.

...

"It would appear that Texaco have some justifications for requesting a tariff reduction."

(Document # 89762, October 17, 1969, Imperial)⁷⁰²

The tariff reduction was not granted (Document # 92222).⁷⁰³

In summary, Trans Mountain's profitability history is marked by two contrasting periods. In the first, the rate of return falls within the guidelines set by the industry. The average return on SDRB base for 1953 to 1963 was 3.1 per cent; this compares to the rate of return of 3 per cent used by Interprovincial to evaluate the Northern proposal. However from 1964 to 1970, the rate of return never fell below 8 per cent. The difficulty in evaluating this performance is that by 1970, the average SDRB rate of return for the entire period 1953 to 1970 was only 5.5 per cent (Documents # 92236, # 92246).^{704, 705}

The difficulty with using averages of this type is that 5 years of excessive returns can be buried in a twenty-year average. It must be remembered that in 1966 there were still references to the tight competitive situation facing Canadian crude in Washington State. However after 1965, U.S. crude prices began to rise relative to Canadian, thereby eventually leaving Canadian crude with an increasing advantage in U.S. markets. It is in the period, from 1967 to 1974, that the SDRB rate of return (using net profits after interest and taxes) exceeded 10 per cent (the standard developed elsewhere generally was 5

per cent) and the before tax fully depreciated rate base return (NEB basis) generally exceeded 40 per cent (the standard for comparison developed elsewhere was 20 per cent).

The effect of Trans Mountain's tariff policy in the late nineteen sixties would have been similar to that described in the case of Interprovincial. Downstream crude costs were raised unnecessarily at the refinery gate. An estimate of the magnitude of this effect can be made. In 1969, Imperial calculated the effect of the rate of return on tariffs as 1 cent per barrel for every 0.3 per cent in the rate of return (Document # 92430)⁷⁰⁶—or 3.3 cents per barrel for every 1 per cent. Between 1968 and 1970, Trans Mountain's return on an SDRB basis averaged 10.1 per cent (Column I, Table 45). This was 5 per cent above the 5 per cent standard used by the industry and therefore, translates to about 16.5 cents per barrel disadvantage at the refinery level.

7. Conclusion

The Canadian pipeline sector provides a classic example of how a transportation monopoly that linked two segments of a vertically integrated industry can be used to affect performance. The monopoly conferred substantial discretionary powers which, when exercised by companies that controlled the pipelines' operations, brought about a lessening of competition both up and downstream from the pipeline.

Upstream, pipeline control led to crude control — the establishment of local purchasing monopsonies — since the pipeline owner acquired an inherent advantage in acquiring first-purchase control. Pipelines were also used to enforce reductions in production when supply exceeded demand at the 'established' price levels. In addition, pipelines were used as a vehicle for price discrimination. This enabled several firms either to gain control or to reduce competition among crudes at certain points.

Downstream, pipeline control was used to ensure preferential treatment of pipeline owners. On the one hand, owners received preferential treatment during capacity shortages. On the other hand, tariffs were devised to penalize non-owners. Non-owners paid high tariff rates while owners enjoyed a rebate via the dividends they received. The net effect was to create an absolute cost disadvantage for non-owners and an entry barrier for new firms. Similarly, control of pipelines was used to create preferential treatment for owner's refineries in terms of access to special streams — streams that because of the Canadian pricing system had the potential for providing the receiving party with an absolute cost advantage.

The trunk pipeline also served as the focal point for the coordination of industry activity. In some instances, it played a direct role by acting as an intermediary for the leading firm. In other cases, it indirectly served to coordinate the industry by conferring upon Imperial certain roles and by

providing the information that would have permitted this firm to exercise sufficient disciplinary authority to weld the industry together.

Based on the foregoing, it is apparent that the pipeline sector played a multi-faceted role in reducing competition both at the production and the refining levels of this vertically integrated industry. It was used both to enhance dominance of the leading firms and to enable them to influence the behaviour of their competitors. Without this contribution, the price-setting mechanism that was devised by the industry would have been ineffective.

H. *Summary*

Unlike the structure of the international crude oil market, in the domestic production sector the major multinationals' Canadian subsidiaries were surrounded by a large number of fringe producers. The four largest Canadian majors — Imperial, Shell, Texaco, and Gulf — accounted for approximately 26 per cent of production between 1956 and 1968. However, crude production was funnelled through a small number of 'first purchasers'. Thus, while production was not highly concentrated, the disposition of crude production was controlled by a small number of firms.

Members of the industry viewed crude control and concentration as substitutes. The high level of concentration in 'controlled' crude discouraged the entry of other companies who wished to purchase crude oil. 'First purchase crude control', therefore, conferred the type of discretionary power that accompanies the restriction of entry to an industry.

A second feature of the Canadian market that affected its performance was the structure of the pipeline network and its ownership. The organization of the pipeline network was such that there was little competition between lines. Moreover, ownership tended to be concentrated in the hands of the same companies which had 'first purchase control'.

The discretionary power that was derived from 'first purchase control' and pipeline ownership by the leading firms in the industry tended to be mutually reinforcing. This power was used to establish a pricing mechanism by which the price of most Canadian crude oil was determined. It was via the pipeline equalization agreement for blended crude on the major east-west transcontinental pipeline that the price of light crudes was determined. Since light crude accounted for about 80 percent of Canadian production, this mechanism was the central focus of all other coordinating activities.

Competition from other competing refinery feedstocks such as condensate, or medium to heavy crudes was restrained by complementary devices. These arrangements reinforced the central pricing mechanism and served to protect the crude price structure established by that mechanism. For example, at the pipeline level, the equalization of condensate was used to suppress an outbreak of price competition in this hydrocarbon. When confronted by an

oversupply of condensate, several firms achieved a consensus on the price of that hydrocarbon even though there was no technical necessity for this behaviour. Indeed, much different behaviour was observed when condensate offered no direct competitive threat to the crude price structure.

Coordination of activity within the production sector took place in a number of ways. Much of this coordination was accomplished via contacts at the pipeline level. There were also direct communications regarding price changes on a number of occasions. One industry member noted that these communications were intended to reinforce tentative price increases. In the case of medium to heavy crudes, an industry organization provided the vehicle for discussions meant to control competition among different producing areas. This organization was used to coordinate simultaneous production restraints on heavy crude oil production in Saskatchewan and Alberta.

That a relatively large number of producing firms were welded into a joint decision-making entity is attributable to the concentration of pipeline ownership and first purchase crude control. The discretionary power derived from these two sources by Imperial allowed it to take the lead in establishing a pricing formula and in achieving a consensus with other firms on the price structure. Imperial posted the base price and devised the formula that related all other crude prices to the base crude. In this sense, the industry's behaviour in the production sector can be said to have stemmed from a dominant firm, leadership model — with Imperial making most of the decisions.

Notwithstanding Imperial's dominant position, other firms were, in various degrees, active participants in establishing the crude oil pricing formula. Other shippers agreed to use the formula laid down by Imperial and to abide by Imperial's posting for the base crude. Imperial's leadership role in these matters relied upon the acquiescence and approval of the major shippers. In the areas where Imperial was not dominant, other firms were able to lead the way in creating the complementary devices that restricted competition. In this sense, Imperial and these firms may be said to have acted as a unit. Their behaviour is, therefore, also consistent with a variant of the shared monopoly model — with members of the industry essentially relying on a leader, Imperial, to make most of the joint-maximizing decisions for them.

The pipeline sector played a major role in facilitating the development of this monopolistic situation. It was, *de facto*, unregulated during this period and the monopoly power, which was derived from ownership of pipelines, was used to lessen competition in several ways. Pipelines served to convey information from one company to another. As such they contributed to the process by which understandings were reached, that were the basis for joint actions. Contacts in the pipeline sector were also used to facilitate production restrictions when no formal authority had been received from provincial authorities to

do so. Thus the pipelines' actions helped to reduce price competition among producers. The pipeline owners also employed price discrimination with respect to transportation charges to limit price competition between crudes produced in different areas.

Pipelines not only served to lessen competition in the production sector; they also created barriers to entry in the refining sector by discriminating against non-owner shippers. Discrimination against non-owners was accomplished in two ways. First, transportation rates were set to produce excessive profit rates. This gave owners of pipelines a competitive advantage because part of their transportation costs were reduced by the value of their dividends. Secondly, control over pipelines allowed the leading firms to control access to preferred crude types. A firm's access to preferred crude types gave it a potential cost advantage in the refining sector. Consequently, where a company owned or controlled a pipeline firm, it not only enhanced its control in the crude sector but extended the same to the refining sector.

The monopolistic situation which was produced by the control possessed by the leading firms was exploited in several different ways. First, it was used to establish a crude pricing formula which resulted in prices that were higher than they would otherwise have been. In addition, complementary devices were used to maintain the prices of other hydrocarbons such as condensate and heavy crude and to prevent the price structure for light crude from deteriorating. As a result, the price of crude oil was kept above world market levels in areas where the two prices should have been equated if market forces had been allowed to function freely. In addition, the effect of high crude prices was felt downstream in high product prices. Finally, the crude price structure that developed was distorted. The price of light crude relative to medium and heavy crudes was kept higher than their relative values to the refinery. In summary, several different devices were used to establish the price of most Canadian crudes, to distort the relative price structure, and to enhance the price of various hydrocarbons.

Behaviour which adversely affected the public interest is found not only in the effect of the industry's arrangements on prices but also in the way power was used to reduce competition. The major firms which possessed control were able to wielded their power in such a way as to entrench their market position downstream from production. As a consequence of the distorted prices of light crudes relative to medium crudes, those companies which could avoid the overpriced crudes were able to obtain a cost advantage. In this regard, the major oil companies took advantage of their power at the pipeline level and their control over crude. They achieved this by removing the underpriced crudes from the mixed blend streams and by shipping them to their own refineries as special streams. In turn this meant that they "dumped" the overpriced crudes into the mixed blend stream which was shipped to their competitors.

This practice lessened competition from small and large competitors who lacked crude control. In some cases, the smaller firms incurred higher costs as a result. By the end of the period, most of the small independent refiners — North Star, Cities Service, Canadian Oil Companies Ltd.—had been removed as competitive forces via acquisition by larger firms. In other cases where firms were not eliminated, their ability to compete was constrained. Because their competitive position in terms of crude costs depended upon the goodwill of the majors who controlled access to the more desirable crude types, these companies would not have been capable of the type of independent rivalry which characterizes the competitive market process. With both large and small firms alike constrained by this process, the leading majors sustained their dominant position and obtained the approval and acquiescence of the rest of the industry to the various arrangements that set the price of crude oil.

The last two volumes have dealt with the performance of the market for crude oil — both at the domestic and the international level. In both areas, the majors coordinated their behaviour and restricted competition with respect to the price paid for crude oil. However, the two sectors differed in terms of the complexity and even the type of arrangement that was used to establish the price structure. Outlining the differences serves to emphasize the flexibility and adaptability of the industry's anti-competitive features. Even though conditions differed substantially in the domestic as opposed to the international arena, the industry was able to adapt its arrangements to the peculiar problems that confronted it in each area.

In the volume on international linkages, it was demonstrated that, because of the relatively small number of firms importing crude, the majors were able to adopt a policy of charging their Canadian subsidiary 'unrealistically' high prices and coordinated their actions either through tax-related discussions or through direct and indirect linkages of one company's prices to those of its competitors. In contrast, the price setting mechanism used in the Canadian production sector was more explicit because there were more firms involved. In the domestic sector, a key to the establishment of prices by consensus was the adoption of a mechanism at the pipeline level that resulted in an agreement on how various crudes would be priced relative to one another. Equalization was the device used to price most crudes. In areas where this was not sufficient, complementary mechanisms were utilized to prevent competition from developing among crude types. Therefore the mechanisms used to restrict competition in the domestic production sector were both more open and more complex than those used in the international sector.

The model of industry behaviour — as opposed to the actual arrangements — also differed in important respects. In both areas, there was a dominant firm. But, in the domestic arena, Imperial played a more active role. In the international sector, Imperial's role was more passive. In the latter case, a high

crude price was established for Imperial and other firms accepted its lead; communications were primarily restricted to confirming the actual transfer pricing policy being followed by each. In the domestic arena, Imperial posted the price of the par crude and was instrumental in devising the formula that related the price of other crudes to the price of the par crude. It also discussed the appropriateness of both with other firms. Imperial's dominance in the domestic sector was greater than in the international sector both because of its 'first purchase crude control' and its control of the main trunk pipeline that ran from Alberta to eastern Canada. While Imperial dominated the domestic production sector, there was, nevertheless, a consensus reached with the other major firms on prices. This consensus took the form of acquiescence to the procedure followed. It also involved supportive behaviour in areas where Imperial was not sufficiently powerful that it could be relied upon to lead the industry.

The international and domestic acquisition sectors also differed with respect to the type of evidence that has been adduced to show the adverse effects that flowed from the manner in which crude prices were determined. In both arenas, the industry was able to establish prices at high levels. The measure of the success experienced in both arenas and the effect on product prices was described. But in the domestic arena, there was an adverse effect that went beyond the establishment of high 'unrealistic' prices. Due to the systematic distortion of the crude price structure and the preferential access to special crude streams, certain smaller refiners were placed at a disadvantage with regard to their crude costs. Moreover, those firms which enjoyed access to special streams relied upon the goodwill of those firms which controlled access.

As a result of this situation, downstream competition was reduced. The competitiveness of the domestic refineries depended upon each having access to competitively priced crude. The evidence shows that this access was controlled by a handful of majors. With the crude costs of most refineries operating in the domestic sphere depending upon the tolerance of Imperial or Gulf, the extent of parallel predatory behaviour that is reported in the Marketing Volume is readily understood. The majors learned to rely upon one another and tended to act as a unit against outsiders in both their refining and marketing operations.

APPENDICES

Appendix A

Mobil Oil, one of the larger Canadian producers, in a 1964 study of the Canadian crude pricing system, provided information on the effect of the pricing mechanism adopted under the leadership of Imperial. Referring to the pricing system, Mobil noted:

“Once the price for the reference crude had been established, prices for the entire range of light crudes produced in Western Canada were and are determined on a simple sliding scale formula based on gravity and sulphur content. Exhibit 3 [see p. 000] shows that these prices (with three exceptions noted later) vary by 3¢ per barrel per API degree of gravity. In addition, they also carry a penalty of 2¢ per barrel for every one tenth of a percent of sulphur content in excess of 0.4%. Thus, to arrive at the simple trend line shown on Exhibit 3, laid-down prices at Sarnia calculated on Exhibit 4 [see pp. 220-223] have been adjusted to a ‘sweet’ crude price by eliminating the penalty for sulphur content.

“Exceptions to the light crude price system in Alberta are in the Pembina field (where Mobil has a substantial interest) and in the Sturgeon Lake field.”

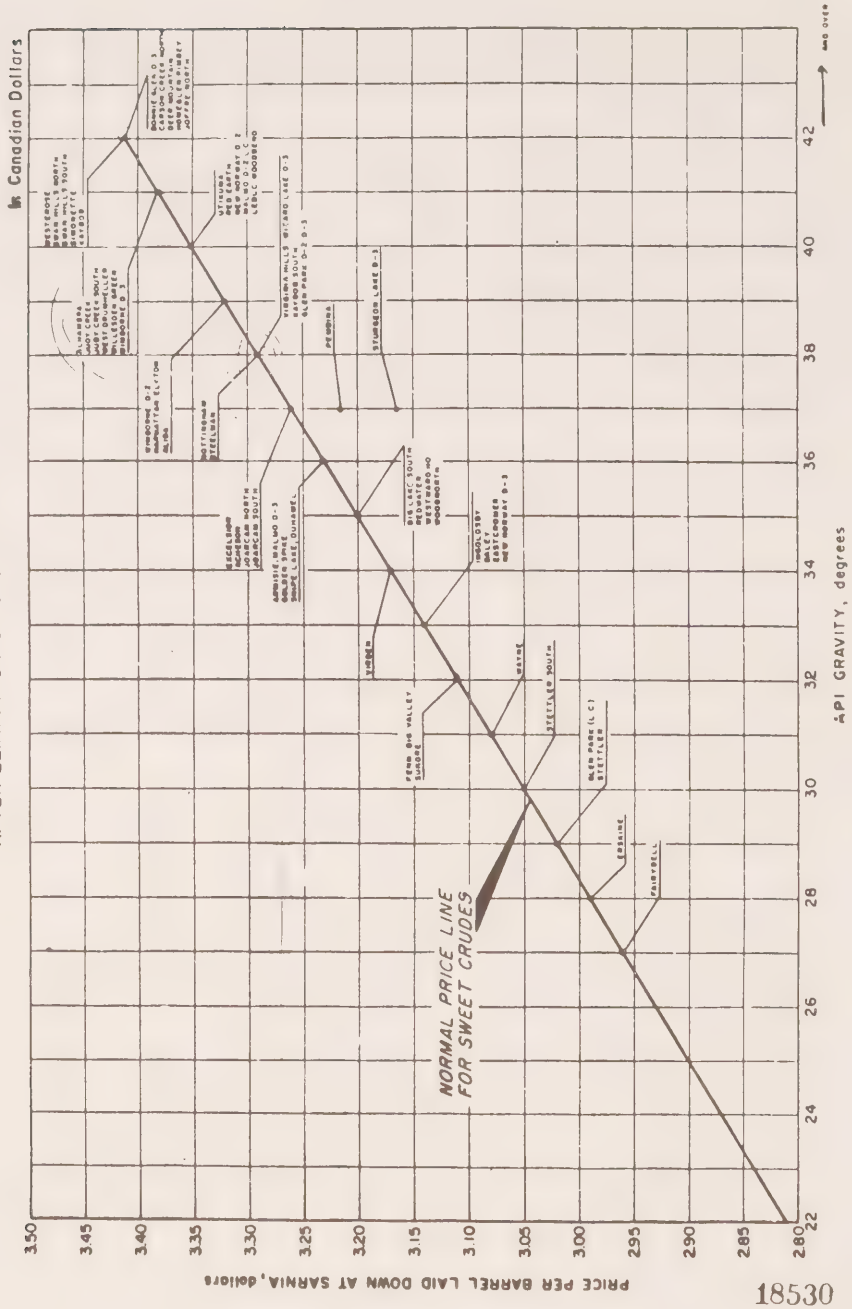
(Document # 18516-7, 1964, Mobil)⁷⁰⁷

Exhibit 3

PRICES OF WESTERN CANADIAN LIGHT GRAVITY CRUDES
LAID DOWN AT SARNIA

ACCR 1680

AFTER ELIMINATION OF SULPHUR PENALTIES



July 1 1964

(Reproduction of Document # 18530)

Exhibit 4
LAI DOW N COSTS OF WESTERN CANADIAN CRUDE S AT SARNIA, (ONTARIO) **In Canadian Dollars**

Alberta Field Pool	A.P.I. Gravity	Sulphur Content (if over .4)*	Wellhead Price	Gathering		Delivered Price at Pipeline	Transported to Edmonton by	Pipeline		Laid down Cost at Edmonton	Transport- ation to Sarnia**	Loss ½ of 1%	Laid down Cost at Sarnia
				*	Charge			Tariff	Loss				
Acheson	37		2.67			2.670	Imperial	.080		2.7500	.4992	.0138	3.2633
Armistie	36	.5	2.62			2.620	Texaco	.080		2.7000	"	.0135	3.2127
Alhambra (Leafland)	41		2.545	R.	.255	2.800	Texaco	.065	.007	2.8720	"	.0144	3.3855
Big Lake South	35		2.49		.120	2.610	Imperial	.080		2.6900	"	.0140	3.2032
Bonnie Glen D3	43		2.83			2.830	Texaco	.060	.0142	2.9042	"	.0145	3.4179
Carson Creek North	42		2.68	F.	.060	2.740	Federated	.160		2.9000	"	.0143	3.4137
Deer Mountain	42		2.59	F.	.150	2.740	"	.160		2.9000	"	.0145	3.4137
Duhamel	36	.5	2.62			2.620	Britamoil	.070	0.0131	2.7031	"	.0135	3.2158
Erskine	28	1.8	2.04			2.040	"	.160	.0102	2.2102	"	.0111	2.?
Excelsior	36	.6	2.59	I.	.070	2.660	Interpro- vincial	.020		2.6800	"	.0132	3.?
Fairydell	27	1.2	2.04	I.	.235	2.275	"	.020		2.2950	"	.0114	2.8056
Penn Big Valley	32	1.1	2.33			2.330	Britamoil	.120	0.0117	2.4617	"	.0123	2.9732
Glen Park D2 et D3	38		2.72			2.720	Texaco	.050	0.0136	2.7836	"	.0139	3.2967
L.C.	29	1.2	2.29			2.290	"	.050	0.0195	2.3515	"	.0118	2.8845
Golden Spike	36		2.64			2.640	Imperial	.080		2.7200	"	.0136	3.2328
Harmattan Elkton	39		2.555	C.	.050						"		
Komeglen Rimby	42		2.685	R.	.135	2.735	Texaco	.065	.0070	2.8070	"	.0140	3.3202
Joarcam North	37		2.59	G.	.14	2.825	"	.065	.0070	2.8970	"	.0145	3.4107
" South	37		2.58			2.590	Edmonton	.150	.0129	2.7529	"	.0138	3.2659
Joffre North	42		2.52			2.580	"	.160	.0129	2.7529	"	.0138	3.2659
Judy Creek	41		2.66	F.	.055	2.715	Britamoil	.370	.0126	2.9026	"	.0145	3.4163
Judy Creek South	41		2.65	F.	.060	2.710	Federated	.160		2.8750	"	.0144	3.3886
Kaybob	42		2.695	P.R.	.030	2.725	"	.160		2.8700	"	.0144	3.3856
" South	38		2.54	P.R.	.070	2.610	Peace River	.175		2.9000	"	.0145	3.4137
Leduc Woodbend	40		2.76			2.760	"	.170		2.7800	"	.0139	3.198
							Imperial	.080		2.8400	"	.0142	3.3534

Exhibit 4
Laid Down Costs of Western Canadian Crudes at Sarnia, (Ontario) In Canadian Dollars

Alberta Field Pool	A.P.I. Gravity	Sulphur Content (if over .4)*	Wellhead Price	Gathering		Delivered Price at Pipeline	Transported to Edmonton by	Pipeline		Laid down Cost at Edmonton	Transport- ation to Sarnia Tariff**	Loss 1/2 of 1%	Laid down Cost at Sarnia
				*	Charge	Loss		Tariff	Loss				
Malmo													
Nisky D2 & L.C.	40	.5	2.72				Britamoil	.090	.0136	2.8236	"	.0141	3.3369
Leduc D3	36		2.62				"	.090	.0131	2.7231	"	.0136	3.2359
Kisky D2	40	.5	2.72				"	.090	.0136	2.8236	"	.0141	3.3369
Leduc D3	33	.8	2.45				"	.090	.0128	2.5528	"	.0128	3.0648
Pembina	37		2.55		F. .090		Pembina	.050	.0132	2.7032	"	.0135	??
Red Earth	40		1.805		P.R. .035		Peace River	1.000		2.8400	"	.0142	??
Redwater	35		2.62		I. .050		Interpro- vincial	.020		2.6900	"	.0138	3.2030
Simonette	42		2.685		P.R. .035		Peace River	.180		2.9000	"	.0145	3.4137
Snipe Lake	36		2.505		P.R. .020		"	.195		2.7200	"	.0136	3.2328
Stettler	29	1.3	2.22				Britamoil	.100	.0111	2.3311	"	.0117	2.8420
" South	30	1.9	2.115				"	.120	.0106	2.2456	"	.0112	2.7560
Sturgeon Lake D3	37		2.435		P.R. .025		Peace River	.190		2.6500	"	.0133	3.1625
Sundre	32	.6	2.305		R. .185		Texaco	.065	.0062	2.5612	"	.0128	3.0732
Swan Hills North	42		2.64		F. .100		Federated	.160		2.9000	"	.0145	3.4137
" South	42		2.68		F. .060		"	.160		2.9000	"	.0145	3.4137
Utikuma	40		1.79		P.R. .050		Peace River	1.000		2.8400	"	.0142	3.3534
Virginia Hills	38		2.56		F. .060		Federated	.160		2.7800	"	.0139	3.2931
Wayne	31	1.4	1.86				Britamoil	.505	.0093	2.3743	"	.0119	2.8854
West Drumheller	41		2.60				"	.260	.0130	2.8730	"	.0144	3.3866
Westrose	43		2.83				Texaco	.060	.142	2.9042	"	.0145	3.4179
Westward Ho	35		2.435		C. .050		"				"		
					R. .135			.065	.0065	2.6915	"	.0135	3.2042

*R. — Rangeland, F. — Federated, I. — Imperial, C. — Cremona, P.R. — Peace River, G. — Gibson.

**Tariff Edmonton to Sarnia is .48 payable 50% in Canadian Dollars and 50% in U.S. Dollars, July 1, 1964.

LAID DOWN COSTS OF WESTERN CANADIAN CRUDES AT SARNIA, ONTARIO

In Canadian Dollars

Exhibit 4

Field	A.P.I. Gravity	Sulphur Content (If Over .4)	Wellhead Price	Gathering		Delivered Price at Pipeline	Transported By	Pipeline		Laid Down Cost at	Inter- provincial Batching Charge	Tariff **	Loss	Laid Down Cost at Sarnia	
				■	Charge			Loss	Tariff						Loss
Saskatchewan — Light															
Alida	39	.6	2.76	P.	.075	2.835	Westpur	.030	.0142	Cromer	—	.3848	.0144	3.2784	
Ingoldsby	33	1.6	2.325	P.	.130	2.455	"	.030	.0123	"	—	.3848	.0125	2.8946	
Nottingham	38	.8	2.69	P.	.075	2.765	"	.030	.0138	"	—	.3848	.0140	3.2076	
Steelman	38	.7	2.71	P.	.075	2.785	"	.030	.0139	"	—	.3848	.0141	3.2278	
Manitoba — Light															
Daly	33	1.4	2.375			2.375	Trans Prairie	.150	.0199	Cromer	—	.3848	.0127	2.9344	
East Cromer	33	1.4	2.275			2.275	"	.250	.0114	"	—	.3848	.0127	2.9339	
Viriden	34	1.2	2.485			2.485	"	.110	.0124	"	—	.3848	.0130	3.0052	
Woodnorth	35	1.3	2.353			2.355	"	.250	.0118	"	—	.3848	.0131	3.0147	
British Columbia — Light															
Boundary Lake	35	.7	2.10	T.P.	.130	2.2405	West Pacific	.560	.0112	Kamloops	—	.22	.0281	3.0398	

*P. — Producers; T.P. — Trans Prairie; S.S. — South Sask.; B.C. — B. C. Oil Line.

**Tariff includes adjustment of 5% for crudes 25° — 30° and 15% for crudes under 25°.

N.B. — B. C. crudes are not in competition with other Western Crudes at Sarnia since they are laid down at Vancouver.

SOURCE: Document #18531-2

Mobil also described how the Alberta crude price, determined in the previously described fashion, then set prices in British Columbia:

“Traditionally, the light crude pricing system described above determines the well-head prices for Alberta light crudes. Laid-down prices at Vancouver can be derived by adding appropriate gathering and trunkline charges. Posted wellhead prices for British Columbian fields are determined by netting back these laid-down prices to the wellhead. . . .Exhibit 4 shows the Vancouver price of principal British Columbia fields; . . . “

(Document # 18521, 1964, Mobil)⁷⁰⁸

Mobil had noted this pattern in the Canadian crude pricing system three years earlier. In a 1961 study, Mobil noted that:

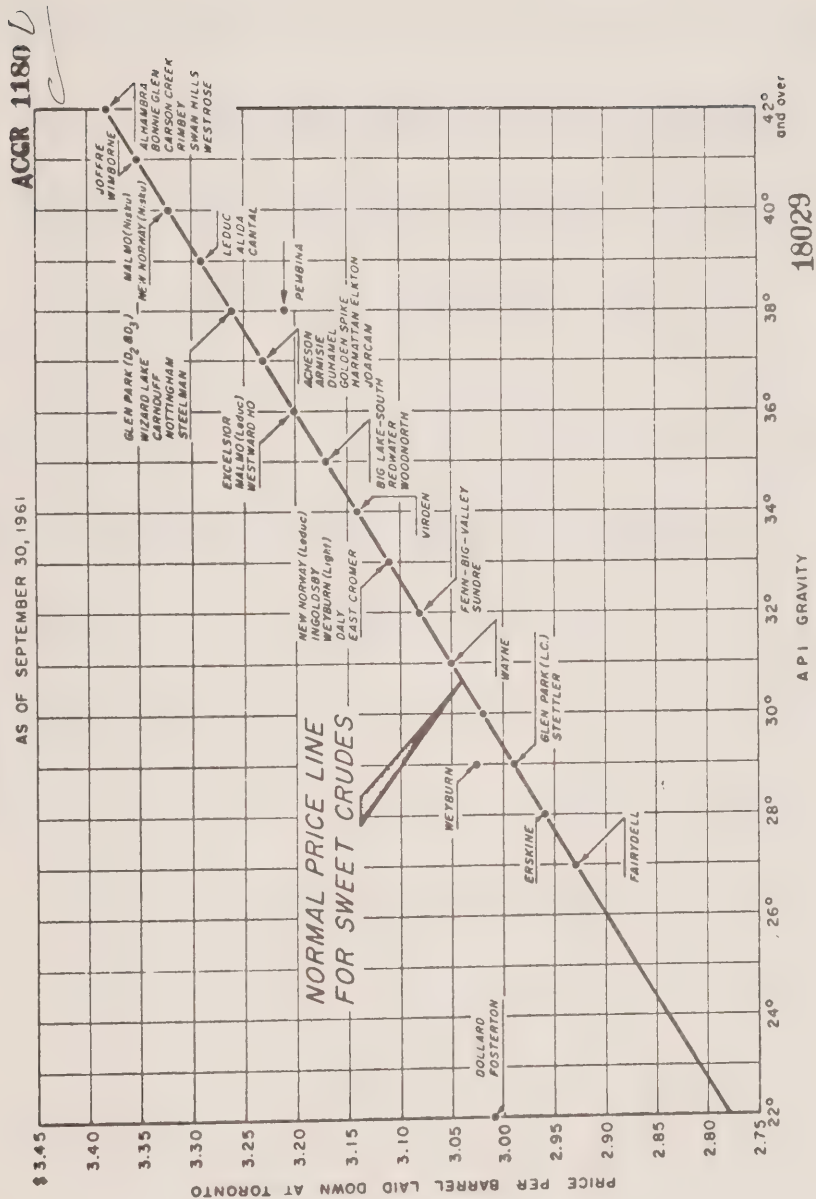
“The fundamental basis for pricing Canadian crude oil is the A.P.I. gravity of the crude oil, originating at the point of delivery in the Toronto refining area. The highest laid-down price is for 42 A.P.I. gravity sweet crude which must be considered the base for all Canadian crude oil pricing. The laid-down crude price declines by 3 cents per barrel for each degree of A.P.I. gravity under 42”. . . In addition, a penalty is applied for excessive sulphur content amounting to 2 cents per 1/10 of 1 percent of sulphur over 0.4% by weight.”

(Document # 18010, 1961, Mobil)⁷⁰⁹

The accompanying graph and tables [see pp. 225-227] illustrate the uniformity of prices that resulted.

PRICES OF WESTERN CANADIAN LIGHT AND MEDIUM GRAVITY CRUDES LAID DOWN AT TORONTO IGNORING SULPHUR PENALTIES

AS OF SEPTEMBER 30, 1961



(Reproduction of Document # 18029)

APPENDIX VII LAID-DOWN COSTS OF ALBERTA LIGHT CRUDES AT TORONTO***

Field	Pool	A.P.I. Gravity	Sulphur Content (if 0.5% or over)	Wellhead price	Gathering charge	Gathering loss @ 0.5%	Delivered price @ pipeline	Transported to Edmonton by:	Pipeline transport- action to Edmonton	Pipeline loss @ 0.5%	Laid-down cost @ Edmonton	Transport- action to Toronto**	Pipeline loss @ 1.0%	Laid-down cost at Toronto*
Acheson		37.0		\$2.57	—	—	\$2.57	Imperial	\$0.07	\$0.0129	\$2.6529	\$0.5481	\$0.0268	\$3.2278
Armistie		37.0	0.5	2.55	—	—	2.55	Imperial	0.07	0.0128	2.6328	0.5481	0.0266	3.2075
Alhambra (Leafland)		42.0	—	2.36	0.35	0.0059 1/4%	2.7159	Texaco	0.08	0.0136	2.8095	0.5481	0.0284	3.3860
Big Lake — South		35.0	—	2.39	0.12	0.0120	2.5220	Imperial	0.07	0.0126	2.6046	0.5481	0.0263	3.1790
Bonnie Glen	D3	43.0	—	2.72	—	—	2.72	Texaco	0.07	0.0137	2.8037	0.5481	0.0283	3.3801
Carson Creek		42.0	—	2.44	0.13	0.0122	2.5822	Federated	0.22	0.0129	2.8151	0.5481	0.0284	3.3916
Duhamel		37.0	0.5	2.55	—	—	2.55	Britamoil	0.07	0.0128	2.6328	0.5481	0.0266	3.2075
Erskine		28.0	1.8	1.94	—	—	1.94	Britamoil	0.16	0.0098	2.1098	0.5481	0.0213	2.6792
Excelsior		36.0	0.6	2.49	0.06	0.0125	2.5625	Interpro- vincial	0.02	0.0128	2.5953	0.5481	0.0262	3.1696
Fairydell		27.0	1.2	1.94	0.225	0.0098	2.1748	Interpro- vincial	0.02	0.0109	2.2057	0.5481	0.0223	2.7761
Fenn/Big Valley		32.0	1.1	2.23	—	—	2.23	Britamoil	0.12	0.0112	2.3612	0.5481	0.0238	2.9331
Glen Park	D2 & D3	38.0	—	2.605	—	—	2.605	Texaco	0.065	0.0131	2.6831	0.5481	0.0271	3.2583
	LC	29.0	1.2	2.175	—	—	2.175	Texaco	0.065	0.0109	2.2509	0.5481	0.0227	2.8217
Golden Spike		37.0	—	2.57	—	—	2.57	Imperial	0.07	0.0129	2.6529	0.5481	0.0268	3.2278
Harmattan Elktion		37.0	—	2.38	0.05	0.0119	2.4419	Rangeland and Texaco	0.21	0.0122	2.6641	0.5481	0.0269	3.2391
Homeglen-Rimby		42.0	—	2.57	0.14	0.0129	2.7229	Texaco	0.08	0.0136	2.8165	0.5481	0.0284	3.3930
Joarcam-North		37.0	—	2.49	—	—	2.49	Edmonton	0.15	0.0125	2.6525	0.5481	0.0268	3.2274
Joarcam-South		37.0	—	2.48	—	—	2.48	Edmonton	0.16	0.0125	2.6525	0.5481	0.0268	3.2274
Joffre	Viking	41.0	—	2.51	—	—	2.51	Britamoil	0.25	0.0126	2.7726	0.5481	0.0280	3.3487
Leduc-Woodbend		39.0	—	2.63	—	—	2.63	Imperial	0.07	0.0132	2.7132	0.5481	0.0274	3.2887
Malmo	Nisku, LC	40.0	0.5	2.62	—	—	2.62	Britamoil	0.09	0.0132	2.7232	0.5481	0.0275	3.2988
	Leduc	36.0	—	2.52	—	—	2.52	Britamoil	0.09	0.0127	2.6227	0.5481	0.0265	3.1973
New Norway	Nisku	40.0	0.5	2.62	—	—	2.62	Britamoil	0.09	0.0132	2.7232	0.5481	0.0275	3.2988
	Leduc	33.0	0.8	2.35	—	—	2.35	Britamoil	0.09	0.0118	2.4518	0.5481	0.0248	3.0247
Pembina	Cardium	38.0	—	2.48	0.09	0.0125	2.5825	Pembina	0.05	0.0118	2.6325	0.5481	0.0266	3.2072
Redwater		35.0	—	2.52	0.04	0.0127	2.5727	Interpro- vincial	0.02	0.0129	2.6056	0.5481	0.0263	3.1800
Stettler		29.0	1.3	2.12	—	—	2.12	Britamoil	0.10	0.0107	2.2307	0.5481	0.0225	2.8013
Swan Hills		42.0	—	2.49	0.08	0.0125	2.5825	Federated	0.22	0.0129	2.8154	0.5481	0.0284	3.3919
Sundre		32.0	0.6	2.12	0.05	0.0110	2.2510	Rangeland/ Texaco	0.21	0.0113	2.4723	0.5481	0.0250	3.0454
Wayne		31.0	1.4	1.76	—	—	1.76	Britamoil	0.505	0.0089	2.2739	0.5481	0.0230	2.8450
Westrose		43.0	—	2.72	—	—	2.72	Texaco	0.07	0.0137	2.8037	0.5481	0.0283	3.3801
Westward Ho		36.0	—	2.35	0.05	0.0118	2.4118	Rangeland and Texaco	0.21	0.0121	2.6339	0.5481	0.0266	3.2086
Wizard Lake		38.0	—	2.605	—	—	2.605	Texaco	0.065	0.0131	2.6831	0.5481	0.0271	3.2583
Wimborne		41.0	1.1	2.09	0.44	0.0052 1/4%	2.5352	Texaco	0.08	0.0127	2.6279	0.5481	0.0265	3.2025

*To arrive at the laid-down cost at Vancouver, add \$0.40 transportation charge and 1% Pipeline Loss to the laid-down cost at Edmonton.

**Tariff = \$0.54 payable 50% in Canadian Dollars and 50% in U.S. with Exchange Rate of \$1.00 U.S. = \$1.03 Canadian.

***Represents approximately 75% of Total Crude produced in Western Canada (Including Saskatchewan and Manitoba).

APPENDIX VIII LAID-DOWN COSTS OF SASKATCHEWAN AND MANITOBA CRUDES AT TORONTO**

Field	A.P.I. gravity	Sulphur content	Wellhead price	Gathering	Gathering Loss @ 0.5%	Delivered at pipeline	Pipeline loss 0.5%	Transportation to Cromer	Delivered at Cromer	Interprovincial batching	Trunk line loss (1%)	Transportation to Toronto*	Laid-down cost at Toronto
Saskatchewan (Light)													
Alida	39.0	.6	\$2.65	\$0.08	—	\$2.73	.0137	\$0.035	\$2.7787	\$0.01	.0281	\$0.4314	\$3,2482
Cental	39.0	—	2.625	0.145	—	2.77	.0139	0.035	2.8189	0.01	.0285	0.4314	3,2888
Carnduff	38.0	1.0	2.455	0.16	—	2.615	.0131	0.035	2.6631	0.01	.0269	0.4314	3,1314
Ingoldsby	33.0	1.6	2.205	0.145	—	2.35	.0118	0.035	2.3968	0.01	.0242	0.4314	2,8624
Nottingham	38.0	.8	2.58	0.08	—	2.66	.0133	0.035	2.7083	0.01	.0274	0.4314	3,1771
Steelman	38.0	.7	2.565	0.105	—	2.67	.0134	0.045	2.7284	0.01	.0276	0.4314	3,1974
Weyburn	33.0	1.6	2.185	0.13	\$0.0110	2.3260	.0117	0.06	2.3977	0.01	.0242	0.4314	2,8633
Manitoba (Light)													
Daly	33.0	1.4	2.275	—	—	2.275	.0114	0.15	2.4364	0.01	.0246	0.4314	2,9024
East Cromer	33.0	1.4	2.175	—	—	2.175	.0109	0.25	2.4359	0.01	.0246	0.4314	2,9019
Virden	34.0	1.2	2.385	—	—	2.385	.0120	0.11	2.5070	0.01	.0253	0.4314	2,9737
Woodnorth	35.0	1.3	2.255	—	—	2.255	.0113	0.25	2.5163	0.01	.0254	0.4314	2,9831
Saskatchewan (Medium)													
Weyburn	29.0	2.3	1.99	0.09	0.0100	2.0900	.0105	0.06	2.1605	0.01	.0218	0.4530	2,6453
Dollard	22.0	2.7	1.70	0.105	—	1.805	.0091	0.175 to Regina	1.9891 at Regina	0.01	.0201	0.5311	2,5503
Fosterton	22.0	2.7	1.725	0.08	—	1.805	.0091	0.175	1.9891	0.01	.0201	0.5311	2,5503

*Tariff from Cromer = \$0.425 payable 50% in Canadian Dollars and 50% in U.S. with exchange rate of \$1.00 U.S. = \$1.03 Canadian.

Tariff from Regina = 0.455 payable 50% in Canadian Dollars and 50% in U.S. with exchange rate of \$1.00 U.S. = \$1.03 Canadian.

Pumping Charges included in Weyburn Medium of 5% and Fosterton-Dollard of 15% on Transportation to Toronto.

**Represents approximately 75% of Total Crude produced in Western Canada (Including Alberta).

SOURCE: Document #18032-3

Mobil not only provides information on the widespread effect of the basic formula used but it also described the few anomalies that existed. A December 1961 study described the pricing anomalies:

"The heavy gravity crudes from Smiley-Coleville, Lloydminster, Wainwright, etc. are natural exceptions due to the specialized and low value product yields obtained from refining these crudes. The other exceptions in the medium and light gravity area are briefly discussed as follows:

1. *Pembina* — The posting for Pembina crude up to January 16, 1957, was in line with the basic Canadian crude oil price structure. At this date, Imperial increased all posted crude prices by 18 cents per barrel with the exception of Pembina which was only increased 13 cents. The reduction of 5 cents per barrel was based on refinery realization tests made at Imperial's Edmonton refinery. The price differential is still in force.
2. *Sturgeon Lake* — Although the sulphur content of this crude is below 0.4%, there is a penalty of 15¢ per barrel due to the mercaptan sulphur qualities which contaminate refined products. The penalty was first imposed in 1960 when certain refineries in Vancouver refused to purchase the Trans Mountain mixed blend stream which contained Sturgeon Lake crude.
3. *Weyburn-Midale (Medium)* — Initially, the Weyburn medium gravity crude posting was by Great Northern and the price was based on delivered value at St. Paul in relation to competitive Wyoming sour crudes. In mid-1959, Canadian Oils, through Gibson, began purchasing Midale/Weyburn medium crude at \$1.59/barrel compared to the Great Northern posting of \$1.925. Although few operators sold production at the low price, the dual pricing situation prevailed for over six months. A compromise price of \$1.72 was finally evolved in November, 1959 which worked out at 5¢ below the gravity differential line after allowing for sulphur penalties. Until September, 1961, this so-called quality [sic] penalty remained in effect. At this time three of the five purchasers in the area (Mobil, Shell and Great Northern) increased the posting by 18¢ per barrel, 10¢ to account for the general price rise and 8¢ to reflect the short supply of the crude type in September. The other two purchasers, Gibson and Shell, increased their postings by 10¢ but did not meet the further 8¢.
4. *Fosterton/Dollard* — Initially (1954), the area had a flat price posting based on reference crudes from Wyoming laid-down at St. Paul, Minn. The flat price had a disadvantage in that Fosterton/Dollard crudes could be delivered in Moose Jaw and Regina at a lower cost than Alberta crudes under the basic pricing structure. Tariff differentiation by S.S.P.L. involving "local" and "through" tariffs sought to prevent this from happening. As a result of efforts by Mobil Oil, selected Wyoming crudes with gravity differentials were finally adopted as the reference crudes landed in Chicago to be used instead of the Platte asphalt sour crudes. The following table is a summary of Fosterton wellhead crude price fluctuations for the last six years:

TABLE XVI—Fluctuations in Posted Wellhead Price, Fosterton

May 1, 1955	\$1.29	Initial posted price, based on flat reference crudes
Sept. 1, 1956	1.33	S.S.P.L. Tariff reduction
Nov. 1, 1956	1.43	Increase in flat postings of reference crudes
Jan. 8, 1957	1.67	Initial gravity postings of reference crudes
Jun 27, 1957	1.65	Tariff reduction of U.S. reference crudes
Oct. 11, 1957	1.57	Decrease in postings of reference crudes
Nov. 1, 1957	1.605	Improvement of gravities of reference crudes
Dec. 20, 1957	1.65	Reduction in premium on Can. Dollar
Feb. 1, 1958	1.715	S.S.P.L. tariff reduction & exchange rate correction
Jun 1, 1958	1.645	Exchange rate correction
July 8, 1958	1.695	S.S.P.L. tariff reduction
July 1, 1959	1.705	Exchange rate correction
Oct. 15, 1959	1.675	Exchange rate correction
Jun 1, 1960	1.725	Exchange rate correction

While it may be noted that the posted price has been changed only to reflect reduced tariffs and exchange rate corrections since late 1957, there have been a number of recent developments which have tended to complicate the pricing situation for Fosterton/Dollard crudes. The first complication occurred when Western crude prices were reduced with the concurrent reduction of Interprovincial tariffs. Since Fosterton/Dollard prices are based on U.S. reference crudes rather than at Toronto, the reduction of Interprovincial's portion of the joint tariff from Cantuar to St. Paul should have resulted in an increased wellhead price. Had this happened, the Canadian markets in Toronto for this crude type would probably have been lost. Thus, the posting was not changed and the differential between the reference crude and the posted price made it necessary for the purchaser, Great Northern, to make settlement with those producers selling on the Great Northern Crude Purchase agreement. This situation was further aggravated when the exchange rate on the Canadian dollar declined from a premium to a discount in U.S. currency terms. Again, the posting should have been increased to equalize with the reference crudes. At present, the settlement price is no less than 25¢ per barrel above the field posting. Appendix IX shows the calculation of the settlement price for three sample periods.

Fosterton Dollard [sic] crude at the present wellhead price is laid-down in Toronto at \$2.55 or 22 cents per barrel more than it would be if Fosterton/Dollard crude were tied to the basic Canadian crude pricing structure on a gravity basis."

(Documents # 18017-9, 1961, Mobil)⁷¹⁰

Finally, an Imperial Oil document (# 139151-3)⁷¹¹ [see pp. 230-232] from 1965 that has been attached indicates the effect of the price setting mechanism. The document notes that "in general" the pricing formula determined the price of light crudes and listed the few exceptions that existed. Document # 139151⁷¹² lists those exceptions that were priced either by subtracting or adding an amount to the price that would otherwise have been set by the formula: in this sense, the formula might be said to have influenced the average level of these few exceptions as well.

SUMMARY OF PRICING POLICIES IN WESTERN CANADA
AS THEY AFFECT LIGHT CRUDE, CONDENSATE
AND NATURAL GASOLINE PRICES

AFAP 36

In general, light crudes (33° gravity and 1.6% sulphur or less) in B.C., Alberta, Saskatchewan and Manitoba are priced in accordance with their relationship to a barrel of crude oil of 42° API gravity with sulphur content of .4% or less. Crudes of this quality receive maximum price and crudes below this quality are penalized 3¢ per degree API gravity and 2¢ penalty for .5% sulphur, the penalty increasing 2¢ for each one-tenth per cent increase in sulphur.

Additional penalties or premiums applied are as follows:

B.C. Light Crude Penalties

The normal gravity/sulphur formula applies to B.C. Light crudes. In addition, the following Mercaptan penalties apply.

	<u>Penalty</u>		<u>Penalty</u>
Aitken Creek	\$.07 ¹⁷	Milligan Creek	\$.06 ¹⁷
Beaton River	.08 ¹⁸	Nancy	.08 ¹⁸
Beaton River West	.06 ¹⁶	Peajay	.08 ¹⁸
Blueberry	.07 ¹⁷	Wildmint	.08 ¹⁸
Buick Creek	.07 ¹⁷	Willow	.06 ¹⁶
Bulrush	.06 ¹⁶		

There is no Mercaptan penalty on Boundary Lake crude.

Alberta Light Crude Special Penalties

<u>Wax Penalty</u>	<u>\$/bbl.</u>
Bigoray	\$.06
Pembina	.05

<u>H2S Penalty</u>	
Sturgeon Lake D-3	\$.15 ⁰⁹
Sturgeon Lake South D-3	.13 ⁰⁷
Marlboro	.23 ⁰⁹

Alberta Light Crude Special Premiums

The following crudes receive a \$.05 bbl. premium at Hardisty.

Bellshill Lake	Kessler
Consort	Provost
Halkirk	Schneider Lake
Hamilton Lake	Thompson Lake

...2

139151

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Alberta Medium Type Crude Oil

Alberta crudes below the 33° gravity and 1.6% sulphur level are not as rigidly segregated as are similar Saskatchewan types. Many crudes below the 33° gravity level are received into the normal light crude streams. Crudes below 33° gravity entering light stream are priced on the light crude formula.

Where feasible, certain low gravity crudes are segregated. i.e. Bow River, Glenevis etc. are priced on a special basis.

Alberta Condensate and Natural GasolinesCondensate

Materials classed as "stabilized Condensate" are priced on a 42° gravity "sweet" crude basis if the material can be segregated for delivery to the refinery. *Current value is \$3.00 bbl at Edmonton less penalty for excessive light ends*

Stabilized condensate, which is not segregated, is priced according to the average gravity of the various crudes received into the specific gathering pipe line.

Natural Gasoline

Natural gasolines which are of insufficient volume to move on a batch basis are priced either on the average quality of the gathering crude stream, or on the quality of a particular crude in the area from which the gas is taken. Materials along the Pembina Pipe Line are priced on a Pembina crude quality basis. *The wax penalty also applies.*

Consort, Nottingham, Steelman and Smiley Natural gasolines are based on the gravity of the crude oil produced from these individual fields. *Less normal penalties for sulphur in excess of 4%*

Clive North and Retlaw are based on the average quality of crude gathered by the Britanool Pipe Line.

~~Sulphur is ignored in pricing condensate and natural gasolines.~~

A standard R.V.P. penalty applies to all natural gasolines.

Although no natural gasolines are purchased in sufficient volume to batch to a refinery, we assume that if they were, each source would be priced separately on its individual merit as a refinery raw material.

A copy of our price list for plant products is attached to supplement the above comments.

139152

Refer to file 7 P-1
approx April 1, 1967
for Rainbow Diesel price base
"Tripped" made
 ...3

AFAP 38

- 3 -

Saskatchewan Crude Oil - Special Situations

Sherwood field crude is tied into the Westapur Pipe Line and is accepted into the light stream although the quality is below 33° and 1.6% sulphur level. Sherwood is priced on the light crude basis using 30° gravity and 1.9% sulphur in applying penalties. The price paid is \$2.145 into the line of Producers Pipe Line. If classed as medium, this crude would be received at Alida Terminal by truck at a price of \$2.305 per barrel.

So far as we are aware, there are no other medium type crudes being received into the light crude streams, with the exception of Smiley crude on the Mid-Saskatchewan Pipe Line and Ratcliffe "B" crude on the Westapur Pipe Line. Smiley is classed as 32° gravity and .1% sulphur and Ratcliffe "B" is 31° and 1.1% sulphur.

So far as we are aware, (with the possible exception of the old Light Weyburn area) there are no light crudes being delivered into medium crude streams.

Crude Oil Purchasing
March 3, 1965
AWR:epr

139153

Appendix B

It was at the shippers' meetings of Interprovincial Pipe Line that the equalization formula, the formation of mixed blend and special streams, and other pricing matters were discussed. For this reason, the identity of the firms who participated in these meetings is of importance. The attached documents list those who attended these meetings at three different points in time—1959, 1966, and 1973. It is evident from these documents that a cross-section of refiners attended these meetings though the identity of the minor firms was not always the same, the largest four — Imperial, Gulf, Shell, and Texaco — were represented on each occasion.

“INTERPROVINCIAL PIPE LINE COMPANY MINUTES OF MEETING WITH SHIPPERS MAY 6, 1959

A meeting was held at the Edmonton Petroleum Club on May 6, 1959 with representatives of shippers and Interprovincial. The following were present:

British-American Oil Company Ltd.

P. R. Hunter, Calgary
J. F. O'Neil, Calgary
R. C. Turner, Toronto

Canadian Oil Companies Ltd.

W. M. Luthy, Calgary
C. H. Tew, Toronto

Cities Service Oil Company, Ltd.

E. J. Vorman, Toronto
R. V. Sellers, New York

Great Northern Oil Purchasing Co.

E. L. Semple, Regina

Imperial Oil Limited

W. D. Archbold, Toronto
N. R. Callaway, Calgary
D. E. Rogers, Calgary

North Star Refineries

S. E. Murray, Winnipeg

Royalite Oil Company, Ltd.

J. A. Harvie, Calgary
M. E. MacGougan, Calgary
A. E. Meyer, Calgary

Shell Oil Company of Canada Ltd.

R. J. C. Pringle, Calgary

Sun Oil Company Limited

B. T. Abbott, Toronto
T. H. Abernathy, Calgary
D. F. Papworth, Calgary

Texaco Canada Limited

A. A. Marshall, Montreal

Texaco Exploration

R. E. A. Logan, Calgary

Interprovincial Pipe Line

N. J. Allison, Edmonton
F. G. Dawson, Edmonton
R. K. Heule, Edmonton
L. Rourke, Edmonton
G. S. Speers, Edmonton
F. J. Stubbs, Edmonton
R. E. Trammell, Edmonton

Guests:

Gibson Petroleum Company, Ltd.

W. F. Hand, Calgary
H. L. Shockley, Calgary

Trans-Prairie Pipe Line

D. R. Brandt, Edmonton

The meeting was opened at 9:30 A.M. by Mr. Trammell who acted as Chairman.”

(Document # 11717, May 6, 1959, Interprovincial Pipe Line)⁷¹³

**“INTERPROVINCIAL PIPE LINE COMPANY
INTER-OFFICE CORRESPONDENCE**

c.c. D. G. Waldon—see
letter T-895 of
Nov. 25-66

1320.4

To	Mr. W. C. Emmons	Date	November 23, 1966
From	L. Rourke	Subject	Shippers' Meeting

A meeting with the Shippers was held in the Board Room of the British American Oil Company Limited in Calgary on Monday, November 21, 1966, at 2:30 p.m. to discuss prorating of deliveries to Ontario refineries in December, 1966. Those in attendance were:

Messrs.	W. F. Blain D. F. Papworth D. Peirson J. S. Steel P. McDonald L. E. Pasychny W. I. Solberg J. Keith R. C. Turner M. Hamilton I. K. Macdonald J. E. MacKenzie W. M. Luthy G. R. Hammond R. L. Harrop N.R. Callaway	Great Northern Oil Purchasing Company Sun Oil Company Sun Oil Company BP Exploration Canada Limited Murphy Oil Company Ltd. Murphy Oil Company Ltd. Northwestern Refining Co. British American Oil Company Limited British American Oil Company Limited Texaco Exploration Company Texaco Exploration Company Shell Canada Limited Shell Canada Limited Imperial Oil Limited Imperial Oil Limited Imperial Oil Limited”
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(Document #11709, November 23, 1966, Interprovincial Pipe Line)⁷¹⁴

**“ATTENDANCE AT JANUARY 16, 1973 MEETING
CALGARY, ALBERTA**

Ashland	—Keith Nesbitt
B.P.	—Jerry Sioui
	—Harris Warnock
Chevron	—Dean Geddes
Dome	—Bob Andrews
	—Doug Fraser
Gibson	—Bob Laidlaw
	—Don Otis
Gulf	—Don Sim
	—Bob Turner
Hudson's Bay Oil & Gas	—Lloyd Pinkoski
	—Don Rogers
Husky	—Keith Allen
Imperial Oil	—Norm Callaway
	—Garry Strong
Koch	—Bill Blain
	—Len Flaman
	—Joel Wilkinson
Mobil	—Bud Pye
	—Fred Tracy
Murphy	—Len Pasychny
Shell	—Wally Luthy
	—Jim MacKenzie
Sun	—Don Papworth
	—Don Pierson
Texaco	—Barry Foster
	—Leo Turcotte
Union	—Jim Irvine
	—Charlie Maxwell
Interprovincial	—Gordon Cole
	—Don Ross”

(Document #11867, January 16, 1973, Interprovincial Pipe Line)⁷¹⁵

APPENDIX C

Shippers of Crude Oil on
South Saskatchewan Pipe Line Company

APPENDIX C

Shippers of Crude Oil on South Saskatchewan Pipe Line Company

	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960
Ashland Oil Canada Limited	X	X	X	X	X			X							
B.P. Canada Limited						X	X	X							
B.P. Oil Limited	X	X	X	X	X	X									
British American Oil Co. Ltd.						X									
Great Northern Oil Ltd.				X	X	X	X	X	X	X	X	X	X	X	X
Gulf Oil Canada Limited	X	X	X	X	X										
Hudson's Bay Oil and Gas Company	X	X	X	X	X										
Husky Oil Ltd.	X	X	X	X											
Imperial Oil Limited	X	X	X	X	X	X	X	X							
Koch Oil Co. Ltd.	X	X	X	X											
Mobil Oil Canada Ltd.	X	X	X	X											
Murphy Oil Company Ltd.	X	X													
North Western Refining Company				X	X	X	X	X							
Shell Canada Limited						X	X	X							

(1) X — indicates that crude oil was shipped

